

Great Lakes TECHNOCRAT

JANUARY - FEBRUARY, 1948



EDUCATE
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GREAT LAKES TECHNOCRAT

JANUARY-FEBRUARY, 1948

VOL. IV. No. 8

WHOLE No. 89

Illustrating the Futility of Price System Methods of Operation; Interpreting the Trend of Events from the Social Aspects of Science and Presenting the Specifications for Permanent Postwar Prosperity.

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"Entered as second class matter June 2, 1943, at the Post Office at Chicago, Illinois, under the Act of March 3, 1879."

Great Lakes Technocrat is a publication of Section 1, R. D. 8741. Technocracy Inc. Published bi-monthly at 843 Belmont Ave., Chicago 14, Illinois. Single Copies 25c. Subscription rates, \$2.50 for 12 issues, 6 issues, \$1.25. Bundle rates 10 to 100, 20 cents per copy; more than 100 copies, 19 cents each. 5 percent discount for cash with order on bundle rates only. Special rate to libraries, anywhere in North America, \$1.85 for 12 issues. Continental Headquarters of Technocracy Inc. is at 155 E. 44th St., New York 17, N. Y. Send all correspondence and manuscripts and make all money payable to Great Lakes Technocrat, 843 Belmont Ave., Chicago 14, Ill. Printed in U. S. A.

TECHNOCRACY LITERATURE

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Our Middle Aged Economy

By David Cushman Coyle, Structural Designer and Consultant

This article is condensed from the article by Mr. Doyle which appeared in the 'Survey Graphic' for August, 1947. It is reprinted by permission of Survey Associates Inc. The article is based upon original work by Alfred G. Norris of the University of California.

When a man or woman is first called "middle aged" it is a shock, and in the same way the idea that American business is now "mature" is scornfully rejected by the average American who has believed for about three hundred years that this is a young country.

Nevertheless, the evidence of the charts speaks for itself.

The studies here reported do not show any signs of age or weariness in the American productive system, or in our technology. But they do indicate that "business" or management is not quite keeping up the pace. Possibly, after all, some of the old boys who set our patterns and whose keenness is supposed to solve our problems would be more useful playing golf in Colorado or Florida the year around.

Anyway, this is a sort of medical report on their symptoms, based on a study by Alfred G. Norris of the University of California, under the title "Employment Trends in the United States since 1900." Mr. Norris has a new system for charting the curve of employment, to bring out more clearly the trends that indicate how we are doing.

The study indicates that the sources of jobs in the United States have passed their prime and are getting feeble. As an economic society, we appear to be in the late middle-aged group. The trends do not show the youthful lift which most people like to think is in the blood of the American system.

"Trends" are records of growth, and in economics they are usually shown as curves on a chart. One way to picture a trend is in terms of how big, such as how big is the annual employment in the United States. This draws the trend line, or average, up and up, accompanying the gain in population. Another way is to show percentages of

growth each year, on a chart with equal vertical spaces standing for an equal proportion instead of the same number. If, for example, the rate of growth is falling off, the curve on this chart begins to droop and it is easy to see where it is likely to level off to no growth at all. Almost all American industries have drooping trend lines on this kind of chart, meaning that their vital force is not what it used to be. Like it or not, their chests are beginning to slip downward.

Mr. Norris, on the other hand, has drawn the curves of employment in terms of percentage of the population. That is, he takes the total population each year as 100 percent, a constant horizontal line. His first concern is with the "labor force," all those who need paid jobs, and this element of the population shows up as a wavy line crossing the page, around 40 percent of the whole. (Chart A)

Actual population in the United States, of course, has risen steadily, and from 1900 to 1910 the percentage of the labor force also rose, due to immigration, the growth of industry, the use of child labor on wage jobs, instead of on the farm, and the growing employment of women. Then it fell with the reduction of immigration and child labor and the building of high schools. Since 1925 it has been coming up slowly again, as the proportion of people of working age increases and more women go into paid jobs. About 40 percent of the population in 1910 and in 1940 needed to earn their living, and the percentage may rise slightly until 1990, unless more young people stay in school and more old people retire. This line is not a "trend" or growth curve. It merely registers our changing habits and customs about working for a living.

Now, with our eyes fixed on this important percentage of people who want jobs and must work for a living, it becomes clear that our pursuit of happiness as a society will depend on how jobs are made available to these people.

So, Mr. Norris proceeds to draw in the curves for the percentage of the population employed in various industries. Employment is shown in total and also is divided into the general classes of physical work (production and transport) and personal work (trade and services). These curves throw a new light on the progress of our economic system.

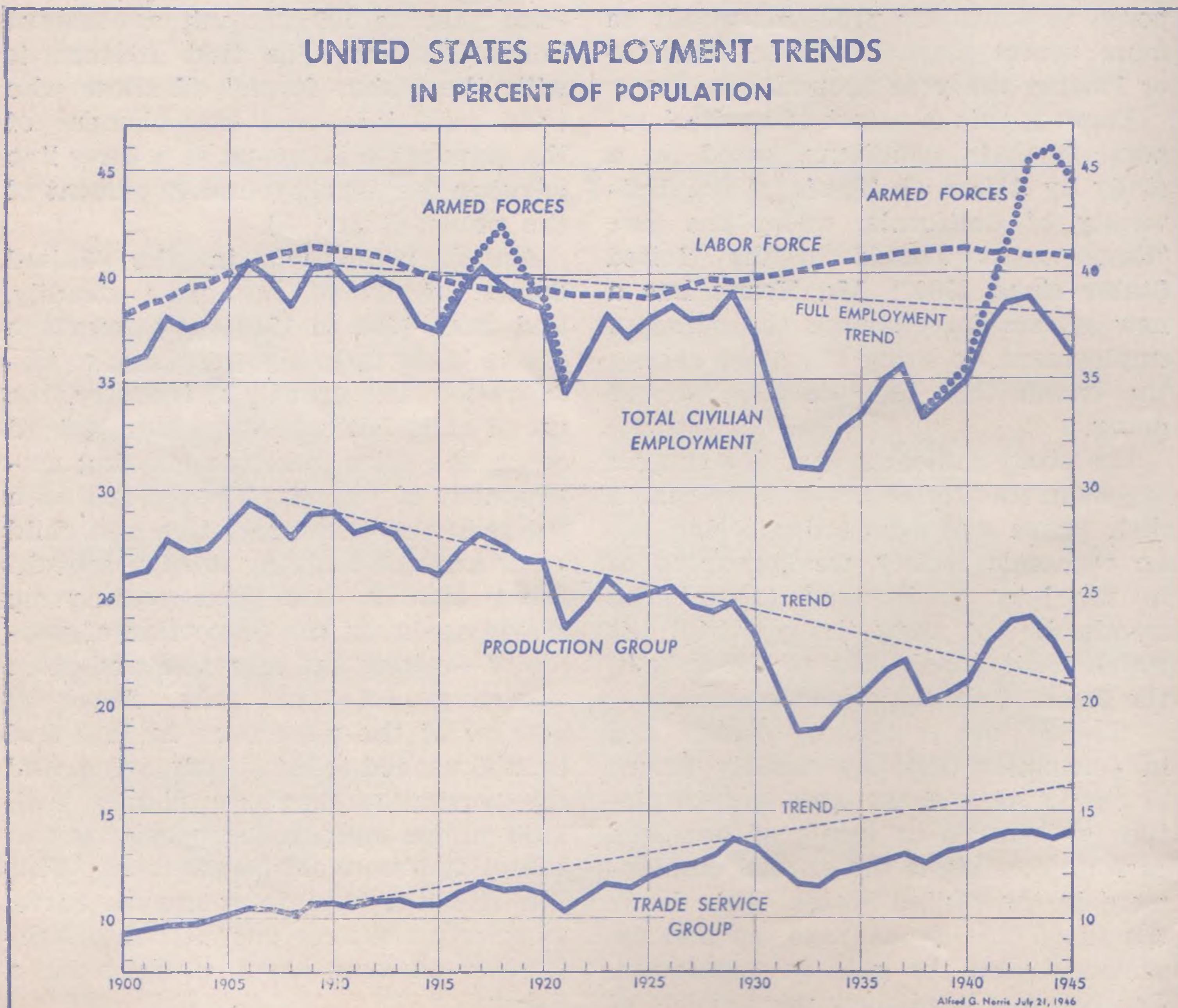
It is these employment curves that show the trends. Take first the curve for total civilian employment, which shows the waves of prosperity and depression, and two special war booms. Skipping the war booms, look at the peaks that represent peacetime business at its best, or "full employment" for practical purposes. The two high-

est ones are at 1910 and 1929, and the trend line from 1910 to 1929 slopes down. The peak in 1943 was a war boom.

In other words, if we make as good progress from now on as we did from 1910 to 1929, the next peacetime peak of prosperity will give us about 37 percent of the total population employed. That means four or five million out of work at the top of the boom. It's not good enough, even if we could find out how to smooth the curve and keep always close to the top.

The other two curves on the chart give a hint as to why full employment is so hard to reach, except in wartime. One represents "production" and the other "trade and services." The production curve shows the percentage of our population in factories and mines and on farms and in transportation, that is, on the making and moving of material goods. This is the curve that shows most clearly the effect of technology. The line from the peak of

CHART A



1910 to 1929 goes down a sharp slope. The curve goes above this line twice, but both these humps were war work. In 1910 we had 29 percent of our population working on production, and we have never come anywhere near that since. *Even in 1943 in an all-out war effort, only 24 percent were in production. (Italics Ours)*

But how about our stupendous output that won the war? It was done with mirrors, practically. In spite of some graft, and some soldiering on the job here and there, it was efficiency that turned out the thousands of tanks and planes. Science did it, and all the millions of men and women on the job never added up to the proportion of peacetime workers of a generation ago.

The production per man-hour in industry gives the reason. Average production per man-hour increased 61 per-

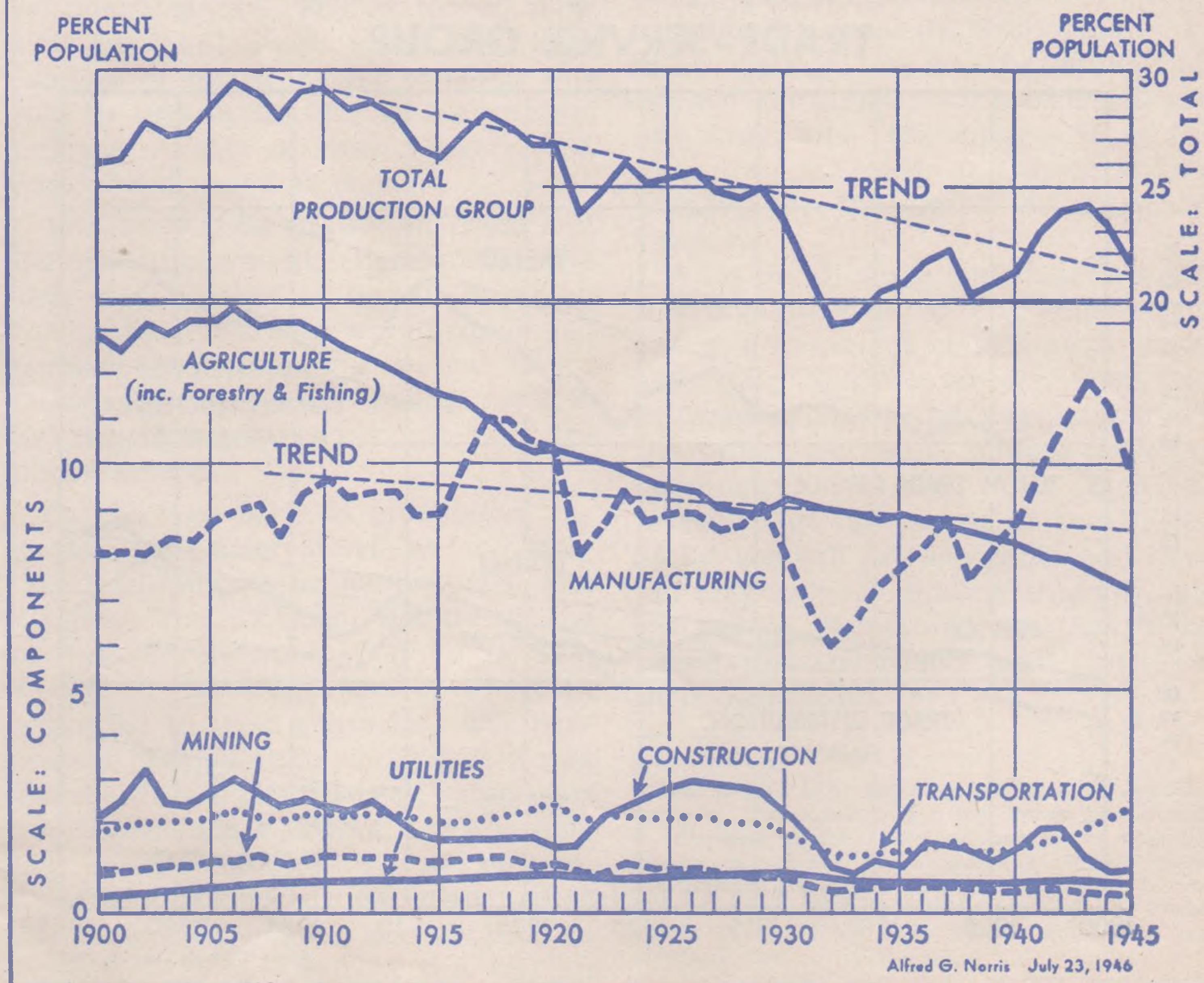
cent from 1920 to 1930, another 37 percent from 1930 to 1940 during the depression, and 11 percent more from 1940 to 1943 with the building of new efficient war plants. Nothing mature or decrepit about our science and technology, so far.

The curve of employment in production (Chart B), as a percentage of the population, passed its peak, or reached "maturity," in 1910, and for forty years has been sliding down into old age. It will not go down to zero, or death, unless the atom puts the cap on the perfect work of science and invention. But it will flatten off with a small proportion of our people, perhaps 10 to 15 percent, earning a living by making and transporting things, as we draw closer to the Push-Button Age. There will still be a few engineers making push-buttons and oiling the machinery.

It is important to keep in mind that

CHART B

UNITED STATES EMPLOYMENT IN PERCENT OF POPULATION PRODUCTION GROUP & COMPONENTS



old age is not catching. The American people or the United States as a nation need not be old just because one form of economic curve is getting gray. What we see here is the curve of "the curse of Adam," that in the sweat of his brow man should eat his bread. We have been fighting that curse with science and invention. The strength of the curse of Adam is measured by what proportion of us have to work to supply goods for all of us and that is what went over the hump in 1910. It is the necessity of long hours at low pay that we have made grow old and feeble so that the ancient curse is no longer so masterful.

Science and invention have the old slave driver groggy. Science in some of its branches is not old, and technology showed its vigor in the tremendous production record of the war. The signs of old age are not in the factory but in the office, not in capacity to produce but in capacity to find

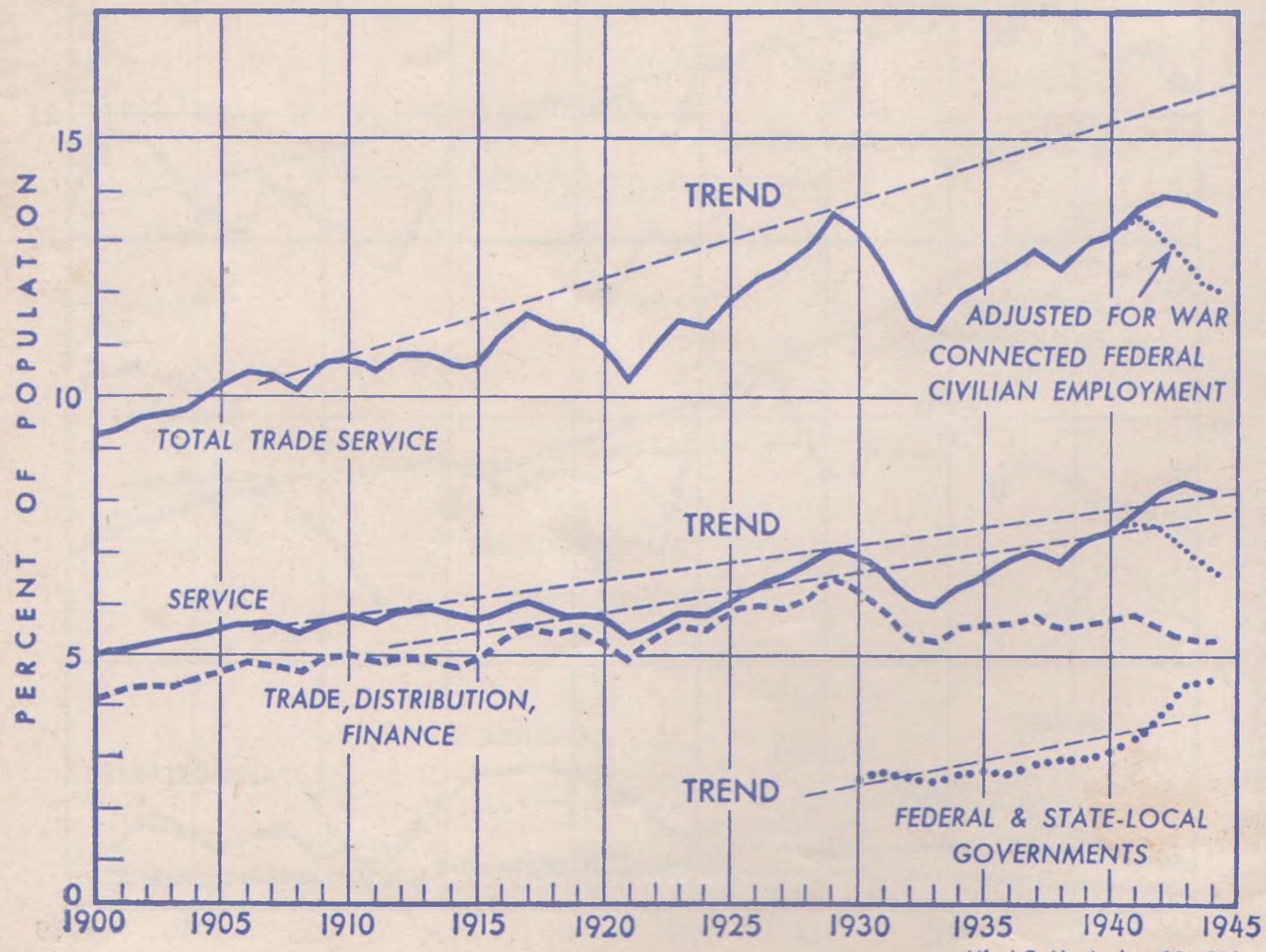
jobs for workers. The victory of technology makes a problem of where to find jobs, but it is still a victory and nothing to regret.

This brings us to the other curve, trade and services (Chart C), representing the percentage of our people keeping store, teaching, doctoring, banking, cooking, or working for the government, in other words, taking in each other's washing. The trend line for services is full of youth and vigor, almost. If it sloped upward a little faster it would offset the down slope of jobs in production, and since total employment is the sum of these two, would lift the total employment to match with the labor force.

The trouble with this trend is that after employment in trade and services slipped in 1929, it never got back to the previous trend line, even in the war. A touch of "maturity" seems to have struck it, also, and it has never been quite the same since. When the curves

CHART C

UNITED STATES EMPLOYMENT IN PERCENT OF POPULATION TRADE-SERVICE GROUP



of trade and services are drawn separately, the drop is seen to be almost entirely in the curve of trade.

The details are not shown here on the chart for Trade and Service, but they can be told simply. Service as a whole holds its upward slope fairly well, though its growth is evidently not fast enough to make up for the down swing of employment in production. Domestic service took a sinking spell from 1910 to 1920 and has never come back. State and local government jobs, not separated on the chart, have gone up a little since 1930. Federal employment rose noticeably after 1930 but did not reach one percent until the war. Medical services and various other lines such as barbers, janitors, lawyers, etc., rose a little, but are too small to show (less than one-half percent each). The data showing private enterprise services as a whole since 1930 are not extensive enough to indicate a trend.

Trade, distribution, and finance, Chart C, look feeble since 1929. What happened, apparently, was a shot of technology in storekeeping, mainly in the form of supermarkets and large department stores. The statistics show that in retail stores about the same number of shirts or cans of beans was sold in 1939 as in 1929 to a customer, but the number of store workers to a customer dropped 12 percent.

The fairly good vitality of Trade and Service employment, therefore, is the sum of a number of trends, in which the only vigorous ones are in the public services, medicine, and a few minor fields. Of these, the public services are the strongest, so far, but they are under attack.

But let's go back to production, regarded by conservatives as the only "real" addition to national wealth and income. The principal details of the production - transportation jobs are shown on the lower part of Chart B, separated to avoid confusion. The percentage of population working on farms was the first to pass its peak, more than a hundred years ago, and it still is sliding steadily downward. Agriculture, forestry, and fishing took 12 percent of the population in 1910, and dropped to 7 percent at the end of the war in

1945. This down slope is caused by science.

Manufacturing, on the other hand, is dropping more slowly. Its trend line hit a peace time high at a little below 10 percent of the population in 1910, and slid down to about 8½ percent (as of 1940) if we disregard the war boom. Technology turns the line downward, just as in agriculture, but the increase in production has been far greater, and that holds the line up. The line slopes gradually down because the increase of output has not quite made up for the technology.

Construction employment has perhaps a slight downward trend. Building depends on whether the wave of prosperity is pointing up or down, and so the building trades swing with the business cycle from boom to bust. Probably in the long run, construction work will be less, partly because of technology, such as prefabricated houses, and partly because we are through building railroads and skyscrapers, and are getting along with our new dams and bridges.

Transportation, mining, and public utility jobs are all on the downgrade, because of technology. Mining may take more men a ton as the mines are worked down, but some metals will run out soon, and coal mining faces the atom on one side and underground burning on the other. before many years.

What do all these curves add up to? Not one of them of any importance, except government employment, shows any strong tendency to offer more jobs in proportion to the population. All the others are being pushed down by technology, including even domestic service. But the people of the United States are still full of vitality and have not intention of sinking into old age yet awhile. Something new has to be added, and the people must add it on their own steam.

Editor's Note:

This article is a splendid example of scientific analysis. There are only a few things wrong with it. Nowhere is there any explanation of how the impact of science and technology brings about the trends illustrated. Another omission is the failure to even allude to the multitudinous social effects produced by these trends, aside from employment and unemployment.

It is a fact that most of our modern social prob-

Items have been either produced or intensified by the impact of science and technology and the failure of the Price System of trade and commerce to adjust its social institutions accordingly. The Price System controls the stop and go lights on social change, not technology. Consequently, the Price System must bear responsibility for the social mess of today. When technology is set free most of these problems will disappear like a snow ball in hell.

The reader will notice that the article has no conclusion, or synthesis. We had to leave it out. In the original article that appeared in the August, 1947, 'Survey Graphic' Mr. Doyle did present his conclusions. However, they are quite unfit to be presented to an audience that understands the social aspects of science and the characteristics of the ancient Price System.

Even Barnaby's pixie Godfather Mr. O'Malley waving his magic cigar couldn't cure a disease by manipulating the symptoms of that disease. Neither can the social problems produced by Price System operations be solved by the use of other Price System methods of operating. A new approach is needed, and it can be found only in the social aspect of science.

The trends illustrated were pointed out by Technocracy many years ago. For instance, Howard

Scott pointed them out in the first issue of 'Technocracy' magazine published in May, 1935, in an article titled 'America Prepares For A Turn In The Road. He has dealt with them dozens of times before and since. Also, in Man-Hours, A Declining Quantity by M. King Hubbert in 'Technocracy' magazine for August, 1936, the subject is well covered. Any student may find the subject of industrial growth curves extensively explained in the Technocracy 'Study Course Book.' Finally, references to and illustrations of the trends so ably charted by Doctor Norris and explained by Mr. Doyle have appeared literally hundreds of times in the general field of Technocracy literature in the last fourteen years.

Nevertheless and notwithstanding, Great Lakes Technocrat is glad to print this article. Technocrats are always tickled pink to see examples of the Price System catching up with Technocracy. Sometimes it takes a little while but that is to be expected. Technocracy is engaged in the unique occupation of manufacturing thunder for the Price System to appropriate. The more it appropriates the more it is forced to appropriate. When it has appropriated enough it will have appropriated itself out of business. If you do not know what this means ask some Technocrat to tell you the Fable Of The Rosebushes.

Breakers Ahead

Mill and Factory magazine put out a special issue in May, 1947. It's called the 'Industrial Productivity Handbook.' The issue runs to 684 pages and is 1 1/4 inches thick. All the late material regarding productivity has been assembled. The book is a mine of information about new technology.

In the forepart of the book is an 8-page panel of opinions by what *Mill and Factory* call the 'Progressive Leaders of Labor and Industry.' Just to see how progressive they were we read their opinions and then tallied up. The desirability of greater production was mentioned 97 times by the 32 gentlemen represented. The vital necessity for DISTRIBUTION got only 4 casual nods. Evidently these gentlemen believe in a Santa Claus type of social system where you produce but don't have to worry about distribution. Maybe they figure Uncle Sam will be a perpetual Santa Claus for Good Old Free Enterprise.

Four percent of U. S. Corporations get 84 percent of all the profits. ('Machinists' Monthly Journal,' August, 1947.)

One third of all dwellings in the U. S. are over 30 years old. ('U. S. News,' September 19, 1947.)

There are about 46,000,000 spending units

in the U. S. In 1946 82 percent of the spending units got less than \$4,000 a year. A spending unit is defined as all persons living in the same dwelling unit and belonging to the same family who pool their incomes to meet major expenses. ('Federal Reserve Bulletin,' July, 1947.)

Personal incomes rose 4 percent from May to September, 1947, but retail food prices rose 14 percent. In reporting this prosperity in reverse 'Business Week' for October 4, 1947 says that people 'get by' by: A. Saving less. B. Drawing on past savings. C. Going into debt. D. Spending less for other things.

Between April and October, 1947 installment buying increased 43 percent in Canada while cash sales declined 42 percent. ('Business Management' magazine, Toronto, Ontario, October, 1947.)

A questionnaire recently sent out to 3,500 members of the New York Credit Men's Association produced the following replies. Eighty percent of them expect a business 'recession' to begin in the second quarter of 1948; 93 percent expect an increased number of business failures; and 95 percent reported that collections were slower than in December, 1946. (Data from 'Wall Street Journal,' October 1, 1947.)

Who Does Your Thinking?

'I Do Mean You!'

By Sam Pavlovic. R. D. 9344

'We may divide thinkers into those who think for themselves, and those who think through others . . . The latter are the rule, and the former the exception . . . The first are original thinkers in a double sense, and egotists in the noblest meaning of the word . . . It is from them only that the world learns wisdom.' (Arthur Schopenhauer, 1788-1860.)

He Knows All The Wrong Answers ..

The individual American is no dope. Most social psychologists are in agreement with this statement. Americans, as a rule, consider themselves sharp and hep, to use the vernacular, in regard to the world around them. Science and technology, despite the shackles of the Price System, have provided Americans with their unique culture. This culture is reflected in the psychological attitude of those who draw the lucky numbers on the Price System wheel of chance. In short, most mental attitudes are in proportion to the debt certificate intake.

Now, in the matter of social thinking, the bulk of Americans hold a low IQ. This is no startling revelation. There is a certain viciousness to social conditioning. All of our social patterns are still premised on the obsolete values of the long eras of hand toil and scarcity. This, too, is quite self-evident. It is recognized that the bulk of the population lives in the immediate moment, such as it is, fashioned for them. In consequence, the greater proportion of Americans entrust their social thinking to somebody else. In doing so, they also put their personal welfare and the destiny of America into the hands of others.

Remember, your social welfare and destiny is in direct proportion to your applied interest. That's plain enough, Mr. and Mrs. American. Remember, too, the next guy always looms large in the social picture; he sets the pace. You only go so far and then, kerplunk, you smack into him. That's as far as you go. Many Americans are frustrated in that they are denied their full functional expression in society. It isn't through their ignorance but the ignor-

ance of the next guy that they are stalemated on the same level. A pile of today's barriers toward social betterment are strictly psychological; they are in your noggin, Mr. and Mrs. American.

As A Man Is So He Thinks

In the long centuries that man was in servitude to ignorance, he could only partially adapt his physical environment to himself. The general pattern was grueling toil from dawn to dusk for the great mass. The standard reward was always the same. It included famine, pestilence, war, crime, insecurity and a few other sundry inconveniences. In these long centuries that Homo Sapiens was perplexed and regulated by the same physical enigmas, there developed a basic set of rules—the rules of the game of the Price System. You know them. You're in the game every day.

Then, somewhere, in his cultural and intellectual development, old Homo found the right combination in the apparatus of his noggin; scientific method they call it. He started to apply this method to the solving of the enigmas of his physical environment, and, lo, they started to fade. Here in America, with the aid of science and technology, Homo finally rid himself of that tenacious and unwanted bedfellow—scarcity. He replaced him instead with a genial newcomer called abundance. There is a catch to this picture of bedfellows. It seems, after a long siege with scarcity, Homo doesn't trust newcomers. Abundance has to sleep outside the door most of the time.

In an impersonal view of the American scene, let's take a peek down the block where our fellow citizens are

crossing the corner. Of course, a great many of them are just standing still. The ones who are moving, as a rule, don't stand out in bold outline, but crossblend and merge in a mottled pattern. Let's pick them out just for the fun of it. You should be interested, Mr. and Mrs. America; they do a lot of your thinking.

Some Stink Worse Than Others

Here comes a guy we generally can hear before we see him. He's the Belly-acher. To him everything is going straight to hell. The country is lousy. The guys who run it are lousy. In fact, everything is lousy. One type of this citizen is in immediate favor of knocking off a definite percentage of his fellow beings. 'Kill the dirty —s,' is his favorite phrase and solution. Outside of disturbing the status of the air around him, he's not dangerous in a physical sense. In the event of a showdown, he would be the first one heading for the woods in high gear. He may impress you as a clown or a crackpot, but, don't forget, this guy is the carrier of all the vicious bacteria of the historical prejudices of the Price System. He does a lot of your thinking, Mr. and Mrs. American.

Now, here comes another fellow citizen. We can tell his walk. Let's call him Stooge. He is today's representative of all the accumulated Medieval nonsense and hocus-pocus. He is the carrier of a nasty germ—sanctified ignorance. When he talks, you can almost smell the stench of the gutters of a Medieval town. You can hear the rustle of the purple robes that covered the ignoramuses who burned Bruno at the stake for the crime of enlightenment; and the creak of the Inquisition's torture rack, punctuated by the screams of its victims is audible, too. His predecessors opposed street lamps and umbrellas, on the ground that in the overall pattern it was meant to be dark and for rain to fall on human beings. All of his thinking is patterned and conditioned by the dogmas of a narrow, bigoted yesterday. He is conditioned to oppose any social change; the ancient rackets must prevail. Take a good look at him, Mr. and Mrs. American. He does plenty of your thinking.

Some Think They Think

Now, here comes a decent sort of appearing fellow across the street. He looks like a pretty good Joe. For that matter, let's call him Joe. Sociologists say he is the balance wheel in our social set-up. His turning makes it easier turning for the Big wheels. Joe, like most of his kind, is all thumbs and ever ready to stick all of them into the leaks of the Price System dikes. Joe is always looking for the right guys to step in and straighten out the political kinks of the Price System. Maybe Joe doesn't know it, but he's got himself a long, long wait. In fact, there will be a lot of ice in the hot place before Joe is through waiting.

When you talk to most Joes, in regard to social problems, you are at somewhat of a disadvantage. Joe has a bushel basket full of platitudes and shibboleths that are covered with the thick moss of ancient history. In a short time, you wind up under them, bushel basket and all.

Joe is always pretty well satisfied with things as they are. 'It could always be worse,' is his ennobling philosophy. Joe has worn out a lot of belts, and developed his muscles, in the process of tightening them. (Maybe, that's why Joe has those wide shoulders and wasp waist.) Somebody should tell Joe to punch extra holes in the belt that he is wearing now; he's going to need them. Free enterprise has hung out the storm signals.

Most of the goof spoof is aimed at good old Joe. He is always blinded by the pickle smoke of the comparative differential in the standards of living, here and abroad. It doesn't take too much to top a Chinese coolie. What Joe has to learn to see is the artificial margin between himself and an abundance. As Joe goes, you go, Mr. and Mrs. American, no kidding. He does a lot of your thinking.

Pillars of Society

Who is this pompous person with the regal stride, now crossing the thoroughfare? That's easy. He's a membor of our aristocracy. For convenience, let's call him Mr. Big—Biggie to his intimates. Mr. Big isn't exclusively the

guy with the overstuffed bank account. There are Biggies who lack the proverbial pot and the proverbial window that goes with it. Mr. Big is firm in that there must be special caste position and privilege. All of his thinking is fringed with baronial ermine. He is death on any form of social betterment that might encroach on the ancient racketeering rights of property status. The great mass of the people are the goofs to him. Throughout recorded history, he has stayed on top by firmly planting his feet on the backs of the goofs, whose selfsame backs have been the base of the social pyramid. We can see Mr. Big's point. If the goofs were to straighten up, he'd go the way of Humpty Dumpty.

Most Mr. Bigs are acclaimed as great benefactors of civilization. All we will say for this point of view is that it makes a swell bedtime tale. If Joe or Adolph were to suddenly take over here in America, it's a safe bet that a lot of the Biggies would switch national anthems. The ones that wouldn't run for the woods would stay to fill the flunky whip-cracking jobs. History has a way of repeating itself in some phases. Mr. Big does a heap of your thinking, Mr. and Mrs. American.

Interspersed among the mentioned fellow citizens, we see an assortment of parasitic vermin who swarm the decaying Price System carcass. They abide by their own special version of the social contract—take the next guy for as much as you can, and as often as you can; everybody is legitimate prey. These parasites range from the two-bit gyp artists up to their kin who fill the plush seats of Price System prestige with their well-cushioned tonneaus. Their principle is the same. The only difference is in the magnitude of operations. The less said about this element the better. The Price System has never been able to make any D.D.T. to exterminate this vermin. Instead, it offers them the best of environmental conditions on which to thrive.

Stand On Your Own Hind Legs
And, now, after a brief glimpse at

some of our fellow citizenry, where do the members of Technocracy fit in the picture? Technocrats are everyday folk, the same as you, Mr. and Mrs. American. They come from all walks of life. They don't set themselves apart as a specially anointed group, or a select clique of intellectual snobs. Neither are they park bench Utopian day dreamers. Technocrats are simply Americans who realize that the unique features of our physical environment call for a new blueprint of social design and operation here in North America. This design and operation will be a social synchronization with our scientific and technological achievement.

The die-hard lunkheads, who claim this is impossible and contrary to human nature, are unaware of the broad sweep of dynamic vision behind this new blueprint of social design. The potentialities for progression in a Technate reach out to the farthest horizons. In the matter of the human drama, scientific social engineering will remove it from the sordid, shabby stage props of the Price System, and put it in a setting where it can really start unfolding. Come what may, Technocrats, at least know in what direction they are going. *Do you, Mr. and Mrs. American?*

Technocrats do their own thinking within the framework of the social aspect of science and the scientific method. Any other type of thinking in this Power Age is not pertinent to the American social problem. The social aspect of science was first outlined by the founders of technocracy. This field of knowledge is broad and new. There is room in it for ever more Americans from all walks of life.

You, too, can think for yourself. Why let the other sap do it for you? Nine times out of ten, he comes up with the wrong answer. That's why this land is in the mess it's in now. It costs you plenty to let him get away with it. Think it over. Then, Join Technocracy!

Whenever a politician talks it's wise to be skeptical: when he is silent it's wiser to be suspicious.

Ten Commandments Of The Price System

f. o. b. Anywhere On Earth

By the Peripatetic Technocrat

In our last issue (copies available) we listed the entire Ten Commandments of the Price System. Evidence was presented to show how the Price System obeys its First and Second Commandments. In this issue we will show how the System lives up to its Third Commandment. This is: 'Keep subverting the law so as to extend and sanctify the concept of private rights over public property.' In the next issue we will take up the Fourth Commandment of the Price System.

What's Mine Is My Own

Once there was a man who had the sole possession and use of an entire island. It was rich in natural resources, fertile soil, forest, land, wild fruit and vegetables, fresh water and animal life. He found it easy to get a very good living from it. He lived alone on the island and had sole control of the whole area. Yet, this man did not own any property of any kind until another man appeared on the island. The first man's name was Robinson Crusoe and the second, whose appearance created Crusoe's property rights was called Friday. Property rights emerge only where there is competition for possession.

Stephen Pfeil observes:

The relation of ownership is not a relation between the man and the thing but between him and other men, whom he excludes from, and to whom he gives possession. Property is an 'exclusive' right and where there are no people to exclude, the right cannot exist.

There is no such thing as a natural or inherent ownership right to property. The 'right' to property is determined by whatever the rules of society may decide in any period. The 'right' consists not in the thing itself but in what society will allow the individual to do with the thing. 'Property, especially private property, is purely a social institution,' as Harry Elmer Barnes observes, 'which made its appearance relatively late in the experience of mankind.'

This is another way of saying that as the Price System of trade and commerce developed, the concept of private rights over public property grew and

became more dominant. In the hunting and fishing stage of culture the hunting territory and fishing waters were usually communally owned. Individuals owned their own weapons and tools. In the pastoral period of culture there was widespread communal ownership of pasture land while the ownership of flocks was largely vested in families rather than individuals.

It was not until agriculture appeared that there was any marked development in the concept of private ownership of land. In primitive society, on the whole, the rule was that movable objects such as weapons, tools, animals, etc., were considered to be private; while land, water, and other assets of the community not readily movable were communally owned and controlled. This division of the concept of ownership between real and personal property persisted down into medieval times.

It remained for the Price System, as it developed, to prostitute these concepts into the sacred cow that 'private property' is today. While doing this it invented out of nothing several abstract rationalizations to justify its prostitution. Among these are the phony idea that there is such a thing as an 'acquisitive instinct.' Also, it is claimed that the private 'right' to property is necessary to provide for bare needs of human subsistence. Then, we have the old standby argument that the 'right' to accumulate private property is necessary to stimulate initiative and efficiency. As is usual with most Price System rationalizations, the opposite of these is nearer to the real facts.

'Go To The Ant, Thou Sluggard—'

In regard to the 'acquisitive instinct'

it is held that this not only dominates mankind but is widespread among lower forms of life, such as insects, birds, rodents and apes. Ernest Beaglehole, an English psychologist, made a special study of this point and reported on it in his book 'A Study in Social Psychology.' He investigated all the evidence cited to support the claim of an 'acquisitive instinct' among birds, insects and animals. The evidence does not support the claim. Beaglehole states that among birds food accumulation is the exception rather than the rule. With respect to insects, he concludes that:

—such accumulating activity is far more reasonably and scientifically subsumed by an instinct of 'nutrition' or 'food gathering' than by an instinct of 'acquisition,'— The psychological origin of property is based on the mental and material appropriation of those objects which are necessary for the satisfaction of those specific instincts subserving the more fundamental needs of the organism.

Harry Elmer Barnes, in his book 'Social Institutions' states: 'the tendency to acquire and defend objects by insects, birds, and animals rests upon a complex set of drives (sex, nutrition, building drive, parental impulses) rather than upon any specific instinct of acquisition.' Barnes observes further that:

Beaglehole concludes then . . . that the resemblance between the acquisitive behavior of man and the other lower forms of life is wholly superficial. There is no organic, psychological, or historical link between the accumulating tendencies of lower forms of animal life and the acquisitive behavior of man.

Professor W. H. Hamilton, in an article on property in the *Encyclopedia of The Social Sciences*, states: 'A suspicious analogue alone enables man to find property in the animal kingdom.' Beaglehole does not stop at a disapproval, he goes on to a correct social synthesis of the question. Barnes reports that he concludes that 'what we find in mankind is socially conditioned acquisitive behavior and not an acquisitive instinct.'

Professor Beaglehole finishes off the myth beautifully in this statement:

The dominant motives to wealth accumulation would thus seem to be prudence, the love of family, the desire for social esteem and invidious distinctions founded on wealth, and lastly, desire for power, and the aggressive control of others. The desire for economic goods, therefore, the response to the bribe of wealth, is always complex.

It is a value supported by a strongly organized system of sentiments and interests, the joint product of the interaction of impulse and emotion with the economic culture patterns of the material and social environment. So important, however, is this group patterning that it is hardly unfair to say that man is acquisitive because his environment makes him so.

New Incentives For A New Age

That's it exactly. And, the environment that has favored the conditioning to acquisitive behavior is the ancient and lousy Price System of Trade and Commerce. In regard to the imbecility that property rights are necessary to provide for human subsistence, Barnes observes:

But, to assure mere subsistence, private property has not been required. Communally held property has assured both subsistence and a considerable surplus over the bare needs of living . . . All we need do is to make it clear that private property is not essential to life, even in well developed societies. The vital necessity is to have the materials essential to life available for use by groups and individuals . . . Whatever can assure effective use of lands, tools and goods will suffice.

The old saw that private property is necessary to stimulate initiative, and efficiency, is likewise a hollow pretension. Barnes observes that:

The normal man wishes to rate well according to the standards and judgments which prevail in his society. When these standards and judgments are primarily related to property and money, then private property may indeed constitute a great impulse (Ed. Conditioned response) to effort. But, with a shift of such standards (conditioned responses) in society, monetary gain and status would have less potency . . . It should be made clear

that human effort can be stimulated by other motives than pecuniary greed . . . Social pressures may do quite as much as private property in stimulating effort and initiative.

Barnes cites the pride of workmanship, community spirit, interest in the public weal, and the striving for cultural and professional superiority as drives as powerful, or more so, than profit and property motives. He concludes:

Self-expression, prestige and superiority are powerful motives among mankind. Property is a strong stimulus only when social prestige and superiority rests primarily upon wealth. When other types of achievement confer comparable or greater prestige, they immediately become more powerful than property in stimulating human effort.

'Bigger And Better'

So much for these pet idiocies of the Price System. There is no more substance to them than there is to a moth-eaten old rag. Nevertheless, the Price System has extended and sanctified the concept of private rights over public property until today there is some form of ownership title attached to everything. It was not always thus. Once upon a time the Price System was almost half-civilized. Not that it ever functioned for the General Welfare, but there was a time when it was less corrupt than now.

There was a time when a law meant approximately what it said. But not any more. When Good Old Free Enterprise started, in real earnest, to ravish the North American Continent just after the Civil War something new was added to the old Price System. The law of the land, which men had learned over many generations to respect, after a fashion, was deliberately prostituted to extend and sanctify the concept of private rights over public property.

We do not want to give the impression that the Price System was once lily white but that recently it has been slightly tarnished by a few 'evil' capi-

talists. This line of thought might suggest that the way to restore its lily whiteness is to pass a law against the big, bad moguls who are corrupting it. Far from it. The American Price System has always functioned in favor of the blessed minority. The difference now is that it has crossed over the line that once delineated comparatively restrained operations into the shadowy realm of socially criminal activity protected by quasi-legal cover-ups. Anythink now goes and anything that 'goes' is 'respectable.'

This tendency of the Price System to become criminal and fascistic was, and is, inherent in its framework and Operating Rules. The reason it didn't come out so strongly before is that the System was still expanding and found it unnecessary. However, the germ was there. It was planted in the American Constitution by our founding fathers. A. W. Calhoun, in his book *The Social Universe*, puts it this way:

The United States Constitution was made by a convention of property interests for the express purpose of preventing democracy and with the positive aim of keeping the propertyless masses in subjection. The Constitution was designed as a framework of government to operate for the purpose of carrying out a supreme principle antecedent to the Constitution and possessing untouchable sanctity, namely, the sacredness of private property, which no government was entitled to infringe . . . All this is entirely natural for inevitably the central purpose of government must be to safeguard the economic system that prevails at the given time. Any other procedure would be suicidal. Consequently those that support the Capitalist system (Ed. Note: Price System) have no ground for objecting when government lends itself as a tool to the capitalist interests.

That's right. We are not objecting. We are illustrating how the System obeys its Commandments. If you don't like this ancient and lousy Price System, you can always join Technocracy and learn about a real system of civilized life that is possible now. But, let's get on with our story.

Enter Corporate Enterprise

From the days of Thomas Jefferson down to the Civil War, the Constitution was never amended. Then came the three Reconstruction Amendments. One of these, the XIV Amendment, was 'originally framed and adopted to protect the civil rights of the Negroes in the South,' as Barnes says. It specified that no State could deprive any person of life, liberty or property without 'due process of law.' This amendment became effective in 1868. At this point Good Old Free Enterprise went to bat.

A campaign was started to get corporations included in the meaning of the word 'persons' in the XIV Amendment. The campaign waxed hotter and was crowned with victory in 1886. The Supreme Court unanimously decided to include corporations in its interpretation of the amendment and 'due process of law.' 'Due process of law' means anything the court wishes it to mean. The mere fact that any law is passed by due process of the legislative bodies doesn't mean a thing anymore. The Supreme Court can decide that the due process of legislation was not 'due process' at all. The 'due process' myth is a companion to the infamous 'Rule of Reason,' a still more abstract myth of the Price System. We'll go into these a little further on.

As W. H. Hamilton writes in his Encyclopedia article, the courts did not protect property so much as they gave the name 'property' to everything they protected. 'John Basset Moore, an authority on law, once stated that the XIV Amendment had given little protection to the Negro but had been extremely helpful to 'the corporation-nigger-in-the-woodpile.' From there on, Barnes observes, 'the property concept was widened by the courts to include anything the vested interests desired to protect.' The change in concepts that occurred following the Civil War is ably stated by Julius Henry Cohen, a distinguished lawyer, in his book *The Law, Business or Profession?*

Since 1860 a great change has come over our land . . . After the war (Civil War) a period of reconstruction, a period of commercial prosperity followed such as had never been

seen before. The brain and hand of the lawyer then became devoted not to the expounding of the law and the application of moral principles in decisions and legislation, but to the formulation of plans, schemes and contrivances for the commercial captains of the day. Not to the service of his country, but to the service of his client's enterprises the lawyer became dedicated. In and out of the statutes he crawled, seeking to find that which would aid his lord, the great commercial baron, to build up the great aggregations of wealth now dominant in this country. He was no longer a student in morals, he was no longer a great statesman, a great orator, a great patriot. He became the servant of his master.

Born Free And Equal

Oh, Well! you may say. 'It may be true that corporate enterprise sabotaged the XIV Amendment. Nevertheless, every man is equal before the law. We are taught that in school.' Oh, Yeah! What school was that, the little red school house built by the Price System to inculcate its myths into the up and coming generation? Listen to what an authority says about it.

In 1919 a study was published by the Carnegie Foundation for the Advancement of Teaching. It was entitled *Justice and the Poor*. The study was made by Heber Smith, a Boston lawyer, and later corroborated as accurate by Elihu Root, a former Secretary of State and distinguished lawyer, and Charles Evans Hughes, former Chief Justice of the Supreme Court. *Justice and the Poor* states in part:

The administration of American justice is not impartial, the rich and poor do not stand on an equality before the law, the traditional method of providing justice has operated to close the doors of the courts to the poor, and has caused a gross denial of justice in all parts of the country to millions of persons . . . Denial of justice is not merely negative in effect; it actively encourages fraud and dishonesty . . . The evil is not one of class in the sense that it gives the poor over to the mercies of only the rich. It enables the poor to rob one another; . . . The line of cleavage which it follows and accentuates is

that between the dishonest and the honest. Everywhere it abets the unscrupulous, the crafty, and the vicious in their ceaseless plans for exploiting their less intelligent and less fortunate fellows.

That is a part of the part the law plays in the Operating Rules of the Price System. This condition is a necessity to the maintenance of a properly corrupted Price System. It is a necessity to the enshrinement of private rights over public property.

Saga of the Founding Fathers

Harry Elmer Barnes observes in his previously quoted book:

A constitution is, quite literally, only a 'scrap of paper'—a document—which describes the framework of any particular government. It tells us whether it will be a monarchy, aristocracy or democracy; whether there shall be executive or legislative leadership; what the powers of the government and the rights of the citizens shall be; and the like.

To this it might be added that any Constitution is a reflection of and bulwark to the prevailing economic and social system. It is a part of the superstructure of the Price System. A social system is not operated by words on a piece of paper. It is operated by (and reflects the operations of) the physical methods of producing and distributing goods and services. Those methods, at the time of the adoption of the Constitution were handicraft-agrarian in their nature. The Constitution could not help but reflect that fact.

Constitution worshippers we have always with us. We hope it makes them happy. However, it might be stated as a matter of fact that the American Constitution is technically illegal in its entirety. The Constitutional Convention of 1787 was illegal. Eight of the thirteen federated States refused to attend a Convention called in 1786. This was after the Revolutionary War. The Convention of 1787 was assembled by trickery. Even more, the delegates to it betrayed the instructions of their sponsors and superiors who had sent them.

Alexander Hamilton proposed a resolution at a conference in Annapolis in

1786 to the effect that there should be a 'revision' of the Articles of Confederation adopted in 1777. He specified that the proposed revision was only to make the Articles more 'adequate to the exigencies of the Union.' It was also stated that any amendments should be submitted to the States for approval.

Up to that time there was no Constitution, there was no central government, there was no President. The American Union was only a loose confederation of Sovereign States. Hamilton's resolution was adopted by the Annapolis Conference and sent to the several States and Congress. Then Congress issued a call for a Convention. Charles A. Beard states in the *Rise of American Civilization* that Congress phrased its call carefully:

—the convention was to be held for the sole and express purpose of revising the Articles; proposed amendments were to be submitted to the Congress and to the states for approval; *the letter and the spirit of the Articles were to be observed.* (Italics ours)

The Convention was held at Philadelphia in 1787. Beard states that 'more than half the delegates in attendance were either investors or speculators in the public securities which were to be buoyed up by the new constitution. All knew by experience the relation of property to government.' What happened? The delegates locked the doors and met in secret sessions. About the first thing they did was to ignore their instructions from their States and Congress and proceed to work out a National Constitution.

'There's Many A Slip—'

It took them nearly four months of closed meetings to do the job. But there she stands today, a strong bulwark for the Price System. Refinements (amendments) were added from time to time. However, the real meaning of the Constitution is not in that document at all. It is to be found in the interpretations handed down from on high by the Supreme Court. Influencing, determining and rationalizing the most anti-social of those interpretations are the two infamous ideologies: 'due process of law' and the 'rule of reason.'

Due process of law meant originally that legal and customary methods of legislation and the execution of legislation must be followed when the government deals with the lives, liberty or property of citizens. The court has distorted this principle by ringing it around with vague, philosophical ideas found nowhere in the Constitution. This perverted mess is then pontifically dished out as excuses to invalidate State and Federal legislation.

Professor Fred Rodell in his book *Woe Unto You Lawyers* states:

The 'due process' clause was originally intended to apply only to criminal cases. The idea that any statute, much less a non-criminal one like a tax or a regulation of business, after being properly passed by a legislature, signed by a governor, and enforced according to its terms by judges, could amount to a deprivation of anything *without due process of law*, would once have been laughed out of court.

Yet that is exactly what the Supreme Court has done. And, where did they get this un-American idea from? They got it from a bunch of 17th and 18th Century European philosophers. Yes, Sir, that's correct! Among these were Thomas Hobbes, Baron von Pufendorf, John Locke, Voltaire and others. These gentlemen sired the theory of natural law which spawned 'due process' and the 'rule of reason.' Thus we see that the philosophical hair-splitting of a set of late Medieval intellectuals is today firmly entrenched near the fountainhead of interference to social change in North America's technological civilization.

Out of Thin Air

Hobbes stated that, as Charles A. Ellwood, Professor of Sociology at Duke University puts it in his book *The Story of Social Philosophy*:

—there is in a state of nature what we might call natural right, which is simply the liberty of every man to do what seems best to him for his own preservation and for his own existence. There is also natural law, which is something different from natural right, since it implies the restraint of reason. Natural right is the absence of any impediment to the doing of that which

seems best for self-preservation; but natural law is a rule found out by reason, and reason forbids any act or omission unfavorable to self-preservation.

Baron von Pufendorf was a professor of natural law at Heidelberg University. He wrote extensively on this theme. Barnes writes that John Locke gave to the theory of natural law the 'particular "slant" that has made it of such great significance in legal history and business operations.' Locke taught that rights were natural and inherent in the individual. He placed the individual at the center of social and political organization and urged that Government should be limited to police powers. To him the major tenets of natural law were the sanctity of personal liberty and private property.

Voltaire wrote once:

God has implanted in us a principle of reason that is universal, just as he has given feathers to the birds and skins to bears. So man has a natural rationality, and this natural rationality, along with his natural sociability, assures man's progress, and is the promise of the final perfectability of human society.

They Knew A Good Thing

Barnes writes that:

This notion was seized upon by the rising capitalistic class, embodied in the constitutions that it wrote, and introduced into the jurisprudence that it fostered. Here we find the legalistic basis of the contemporary reverence for property, and the impregnable defenses that have been erected around it. Linked up with the power of the Supreme Court of the United States to declare laws unconstitutional under the broad concept of "due process of law" it all but removed private property from social control.

Roughly, that's how they did it. You will not find anything in the ideologies of natural law, natural rights, 'due process of law,' or the 'rule of reason' that affects the General Welfare of all citizens favorably. That's not the idea. This mess was all cooked up for the benefit of Good Old Free Enterprise. Since it thought up 'due process' the Court has ruled against the General Welfare so many times and in favor of

the blessed minority that it would take a book to list the cases. While you could put all the times it has ruled in favor of the people snugly away in your grandmother's thimble and have room to spare.

In 1911 the Court ruled that the Sherman Anti-Trust Law could be violated only by an 'unreasonable' restraint of trade. The 'rule of reason'

showed them that a reasonable violation was O.K. In other words, you may rape the lady as long as you do it reasonably. Anything is possible when you pick your guiding concepts out of thin air.

'Yeh, Verily! Thou must keep subverting the law so as to extend and sanctify the concept of private rights over public property.'

Down On The Farm

'A group of farmers in Champaign and Platt Counties, Ill., have kept records on corn production costs since 1920. During the period 1920-28 it took an average of 13.8 man-hours, 32.6 horse-hours, and 0.8 tractor-hours to produce an acre of corn—planting, cultivating and harvesting. In 1944 it required only 6.4 man-hours, 0.9 horse-hours, and 4.7 tractor-hours. Valued at 1944 rates an hour (man-labor 55 cents, horse work 30 cents, and tractor work 50 cents) savings amounted to \$4.07 for the labor costs and \$7.55 for power costs.

And the savings on producing a bushel of corn are even more striking. This is because of higher yields per acre, from 48.7 bushels in 1920-28 to 56.4 bushels in 1944. Despite the higher prices in 1944 for labor, power, and other things, these farmers produced a bushel of corn at only two-thirds the cost that they did in 1920-28. Further advances in corn production are almost certain to follow from even wider use of hybrids, greater use of fertilizer and increased mechanization. (USDA Clip Sheet, June 22, 1947.)

'The Dixie Beet Thinner will accomplish in an hour work equivalent to that done by eleven men in the same time. Will thin from 8 to 10 acres of sugar beets per day compared to one-half acre per day by man labor.' 'New Agriculture,' August, 1947.)

'When the first cow testing association was organized 40 years ago, the cows under test produced an average of 215 pounds of butterfat a year. Now 1 million cows in dairy-herd-improvement associations are producing an average of 339 pounds per cow per year . . . Average butterfat production for the remaining 25 million dairy cows has increased by 30 pounds during the same period.' (Agriculture Research Administration, USDA, March 11, 1947.)

During the last 10 years the average yield of hops per acre amounted to 869 pounds. During this time the Oregon station of the Agricultural Research Administration has been experimenting with sprinkler irrigation. The practice has been extended to an estimated 5,000 acres in the Willamette Valley. Where used correctly sprinkler irrigation has increased yields from 25 to 40 percent. (Report of the Chief of the Office of Experimental Stations, Agricultural Research Administration, USDA, March 11, 1947.)

Gus Kister of Wooster, Ohio, has a world monopoly on a timothy seed cleaner. He is the only person in the world who can make the machines. He has built only 36 in the last 14 years. It takes him six weeks to make one machine and he gets a good price for each one. However, Gus says he is in no hurry to become a millionaire. (Chicago Sun, August 3, 1947.)

Flashes of American History

IX—An American Professor Brings the World to Our Doorstep

By Ben H. Williams. 8141-15

The steed called Lightning (say the Fates)
Was tamed in the United States.
'Twas Franklin's hand that caught the horse;
'Twas harnessed by Professor Morse.

An observer of American history, viewing in retrospect the two decades between 1830 and 1850 may discern therein the outlines of the approaching Power Age. Already steam power was being more and more extensively applied to water and land transportation and to varied factory operations. The second and more dynamic factor, electricity, was just emerging from the preliminary stage of laboratory research. Pioneer experimenters, such as Franklin, Oersted, Volta, Ampere, Faraday, Maxwell, Henry, and others, had been or still were trying to 'catch the horse' so to speak, preparatory to its being 'harnessed' by succeeding engineers.

Introducing The Hero

One of the apparent anomalies found in technological history is the fact that sometimes epoch-making devices are the work of inventors with little or no previous technological training. The electric telegraph is an instance of this kind. A chance conversation among passengers on a ship returning from Europe to America in 1832 suddenly introduced the hero of our drama in the person of a poor but promising professor of art—Samuel Finley Breese Morse—who for several years had been quietly perfecting his painting technique in some of the noted European studios.

Here is how Edward Lind Morse, the son of that distinguished American tells of the incident on board the ship Sully:

One night at the dinner table the conversation chanced upon the subject of electromagnetism, and Dr. Jackson described some of the more recent discoveries of European scientists—the

length of wire in the coil of a magnet, the fact that electricity passed instantaneously through any known length of wire, and that its presence could be observed at any part of the line by breaking the circuit. Morse was, naturally, much interested and it was then that the inspiration, which had lain dormant in his brain for many years, suddenly came to him, and he said: "If the presence of electricity can be made visible in any part of the current, I see no reason why intelligence may not be transmitted instantaneously by electricity.."

This 'inspiration of genius' was followed at once with rough pencil sketches by Artist Morse of a device showing nearly all the basic features of the electric telegraph. At the point of leaving the ship in New York harbor, Morse remarked to Captain Pell: 'Well, Captain, should you hear of the telegraph one of these days as the wonder of the world, remember the discovery was made on board the good ship Sully.'

A Multiplicity of Difficulties

But alas for 'inspirations'! They seldom lead immediately to practical results. And the story of Morse and his telegraph is 'tops' in the series of harrying life-histories of pioneer scientists and inventors. For twelve long years Morse labored on the details of this revolutionary device before he was enabled to make a public demonstration of the practicability of his invention. During that period he endured the direst poverty; ran into all sorts of mechanical difficulties; met the insolent opposition of enemies along with the lukewarmness and oftentimes the desertion of friends; and had ample acquaintance with the social ineptitude

of politicians, scientists, and other public characters. An observation on the side may not be out of place here: Morse was devoutly religious and sincerely believed that he was the chosen instrument of the Almighty to bring this great discovery to mankind. That belief, he declared time and again, sustained him through his frequent periods of near frustration, to final triumph. A modern scientist, with or without religious faith, may find similar consolation in reviewing the history of science and of the invariable triumph of the scientific method over similar difficulties.

An Artist's 'Incentive'

An incident in Morse's experience at this period may help to bring the picture into bolder relief. On his return from Europe with his big idea, our inventor found it necessary to continue making a living by teaching art. In his modest studio and living quarters, Morse carried on his labors, teaching his pupils and working as time would permit on his great device. One of his art pupils, General Strother, afterwards known in the world of literature under the pen name of 'Porte Crayon,' tells this story:

I engaged to become Morse's pupil, and subsequently went to New York and found him in a room in University Place. He had three other pupils, and I soon found that our professor had very little patronage. I paid my fifty dollars that settled for one-quarter's instruction. Morse was a faithful teacher, and took as much interest in our progress—more indeed than—we did ourselves. But he was very poor. I remember that when my second quarter's pay was due my remittance did not come as expected, and one day the professor came in and said, courteously:

"Well, Strother, my boy, how are we off for money?"

"Why, professor," I answered, "I am sorry to say I have been disappointed; but I expect a remittance next week."

"Next week!" he repeated sadly. "I shall be dead by that time."

"Dead, sir?"

"Yes, dead by starvation."

I was distressed and astonished. I

said hurriedly: "Would ten dollars be of any service?"

"Ten dollars would save my life; that is all it would do."

I paid the money, all that I had, and we dined together. It was a modest meal but good, and, after we had finished, he said:

"This is my first meal for twenty-four hours. Strother, don't be an artist. It means beggary. Your life depends upon people who know nothing of your art and care nothing for you. A housedog lives better, and the very sensitiveness that stimulates an artist to work keeps him alive to suffering."

Triumph At Last

Finally, after eleven years of harrying experiences and of repeated frustrations, Morse, on March 3, 1843, found himself seated in the gallery of the U. S. Senate on the closing day of the session, anxiously waiting for that body to confirm the passage of a \$30,000 appropriation for an experimental telegraph line between Washington and Baltimore. The House had already passed the bill by a small majority. But without waiting for the Senate's adjournment, Morse in despair left the assembly at midnight prepared to abandon his great venture forever. Early the next morning he received a visit from a young girl, the daughter of a friend, who said she wanted to be the first to congratulate him. Morse was non-plussed until she informed him that his bill had passed at the last moment before adjournment.

The experimental line was completed following many mechanical difficulties, and on the 24th day of May, 1844, in his famous code of dots and dashes, Morse himself ticked off to Alfred Vail in Baltimore the first message in long distance communication by electricity in America. In line with Morse's religious devotion the message repeated these words from the Bible: 'What hath God wrought!' Vail ticked back the words from Baltimore at once, and 'the wonder of the world' had become a reality.

Thanks to the genius of this obscure artist with a large 'bump' of persistency, the cornerstone of instantaenous world-communication had been laid. The tele-

graph gave wings to railway development and efficiency of operation. But it went beyond the scope of the railway, quickly spanning the continents of the old and new world. It was followed in a couple of decades with ocean cables uniting the continents. Within 35 years came the telephone; a few years later the wireless telegraph; then the radio-telegraph; the radio-telephone; the radio proper; and finally, television.

Meanwhile, the application of electrical power to prime movers, secondary movers, and other mechanical devices was keeping pace with its use in communication. Our next 'Flash' will throw some light on this under the title 'An American Engineer Builds the First Electric Power Station.'

References: Edward Lind Morse, 'Samuel F. B. Morse, his Letters and Journals.' Sarah K. Bolton, 'Famous Men of Science.'

Americana

The total land area of the U. S. is about 1,905,000,000 acres. It is being used as follows: 1,500,000,000 acres for cropland, grazing, and pasture land; 94,000,000 acres are in deserts, swamps, and mountains; 87,000,000 are used for recreation and travel, made up of game refuges, railroads, highways, farmsteads, military lands, and similar tracts; finally, there are 13,000,000 acres in cities and towns. ('U.S.D.A. Clip Sheet,' June 15, 1947.)

Almost 40 per cent of the land area of the United States receives too little rainfall for safe general agriculture, according to a Twentieth Century Fund survey, but only 3 per cent of this area is now being irrigated.

The Census Report on Agriculture for 1945 reveals that 12 percent of the farms in the U.S., 687,310 farms, harvested and marketed 53 percent of all food and fibre crops. The other 88 percent of farms, or 5,061,760 farms, harvested and marketed only 47 percent.

A twentieth Century Fund report shows that one third of the American people live in areas without public libraries.

It is estimated that in 1940 the total residential consumption of fuel for heating was about 5,038 trillion BTU. Of this amount, the useful heat was estimated at 2,382 trillion BTU or about 47 percent, the balance representing heat lost up chimneys. (From an article in *Public Utilities Fortnightly*, June 5 1947.)

'Sixty percent of the 115,000,000 miles of telephone wire in use in the U. S. is in underground cable. The North American Continent has 58 percent of the world's total mileage of telephone wire as of August, 1946.' ('Kellog Messenger,' October, 1947.)

In March, 1945 a special committee was appointed in Massachusetts to study the liquor problem. After an exhaustive study the committee reported that for every dollar the state collected in liquor taxes it spent \$4.68 to take care of victims of this type of free enterprise. (*Labor*, June 21, 1947.)

'The underground water level is dropping fast in the Chicago area, Max Suter, engineer for the state water survey, testified at an Interstate Commerce Commission hearing today.' Suter stated that the water table is now at an average depth of 300 to 400 feet and would go down to 600 feet soon. (*Chicago Daily News*, May 15, 1947.)

'Question: Can people be happy or have a high standard of living if we do not stop floods? Answer: No. The loss of probably a billion dollars worth of soil in the recent river floods which can never be replaced gives point to Dr. Ward Shepard's new book "Food or Famine." He shows we must conserve our soil, forests, grasslands and mines or we will soon not have enough to eat or wear in abundant America.' Albert Edward Wiggam, D.Sc. in his column *Let's Explore Your Mind*, in the 'Chicago Daily News,' September 12, 1947.)

Skunks Are Skunks

Waste Is Good Business

By Clyde Wilson. R. D. 9140

'At the outset it must be recognized that the prevailing economic system within which the workshop must function is an increasingly wasteful system. Its wastefulness is due to the fact that it does not allow for primary direction or control in the interests of standards of living.' (Mary L. Fledderus, Research Associate of the Russel Sage Foundation, in "Technology and Livelihood," page 207).

By Their Works

It is characteristic of the Price System to conscientiously withhold efficiency for the sake of profit without any thought as to the results of such a process. Throughout the years the Price System method of operation has squandered our resources to such an extent that we are rapidly becoming a 'have not' civilization.

In 1945 the United States iron-ore mines produced crude ore totalling 106 million gross tons. Of this output 85 percent came from Lake Superior region. The Mesabi, largest of the six producing ranges, supplied 78 percent of the district total and 66 percent of the United States total. Recent reports show that the Mesabi Range is estimated to last twenty years at this rate.

Lyle F. Watts, Chief of the U. S. Forest Service, has stated that we are heading straight for scarcity as to timber within twenty years. Our trees are disappearing one and a half times faster than they grow. We waste 54,000,000,000 board feet a year. This is due to the fact that 'free enterprise' puts the almighty dollar before scientific planning and America. If Government controlled forest land can ward off the pressure of the politico-business operators of the Price System, it will be a wonder.

According to the Department of Interior, we are consuming oil twice as fast as we find it. With a reserve of 21,000,000,000 barrels of oil in the ground, we used up 1,700,000,000 barrels in 1945 alone. In 1946 the production of petroleum was 1,730,000,000 barrels. At this rate our petroleum supply will last

about 12 years. We have no less than 160 trillion cubic feet underground of natural gas. It is estimated that we use 4 trillion cubic feet of natural gas a year. Besides this, billions of cubic feet are wasted and burned off in flares every year.

In 1942-43 the 1,340 mile-long pipelines, Big and Little Inch, were built to carry oil and gasoline from the Southwest to the New York-Philadelphia area. Now that these pipelines are to be used to carry natural gas to the east, the coal and railroad interests have used every joker in the books to prevent their use. In Pennsylvania the State forbids stream-crossing permits to any but petroleum products and has held that natural gas is not such a product. It is not the concern of politics or business that about 2,000,000,000 cubic feet of natural gas is being wasted each day.

Business As Usual

About 1.30 pounds of coal are required to produce one kilowatt-hour of power. In 1945, 71,626,000 tons of coal were used by steam generating power plants. By installing a Continental Hydrology and Power Transmission System, we could conserve this amount of coal. By converting coal into gas at the mine, we could eliminate the cost of mining and of shipping coal. It is interesting to note that the railroads consume about 22 percent of the nation's coal production and derive about one-eighth of their revenue from hauling it. It is easy to understand, therefore, why these interests would work together to maintain such a lucrative racket.

Outside of monetary manipulations and waste of natural resources, business success can be attributed to selling obsolescence and turning out an inferior product for quick turnover and more profits. It is not good business to make things that last, although it is easier to do so. Business is not concerned with what effect this will have on our non-replaceable resources. It is now well known that corporate enterprise throughout the world entered into cartel agreements to maintain the status quo, to prevent the advancement and development of technology. The vested interests have done everything possible to prevent a comprehensive design, or even part of it, for a transportation, power, irrigation and conservation program on this Continent.

For years business interests have scuttled the St. Lawrence Waterway project. The Central Valley project has been sabotaged by seeing to it that it is to be used only for reclamation purposes. The Army Engineers have wasted the taxpayers' money by building levees on the Mississippi in an attempt to protect property rights. Witness the recent flood in the Mid-West, the worst in over a hundred years. Business enterprise has sold the physical wealth of America down the river, for the sake of figures on a piece of paper.

The Child Is Father To The Man.

The flow of energy is unidirectional and irreversible. It is the duty of all of us to see to it that our resources are converted in the most efficient manner, with a minimum wastage of non-replaceable resources. This is an inte-

gral part of Technocracy's design. In a Technate the social mechanism would be designed to operate at the highest possible load factor and efficiency. This, in turn, would mean a high standard of living for all Americans. The importance of this issue demands further investigation on your part as to Technocracy's scientific approach to the problem.

Technocracy's analysis of the North American Price System of trade and commerce has never been, and cannot be, refuted. However, Technocracy is not all analysis. It is not all a matter of exposing the stinks of this ancient and lousy system. After all, nearly everybody will admit that a skunk stinks something terrible. However, very few Americans know the way to take the stink out of the skunk that our social system has become. Here is where Technocracy shines. It has the correct answer.

In other words, the modern American problem is how to remake our ancient Price System into a system controlled and operated by scientific laws for the benefit of all. It can be done, and Technocracy knows how to do it. Technocracy is the only Organization on this Continent that has this information. It knows how to organize a social system on this Continent that will 'allow for primary direction or control in the interests of standards of living.' If you think this claim is preposterous the best and only way to disprove it is to join Technocracy and expose it from the inside. The door to the New America is wide open.

How about it, Mr. and Mrs. America?

Parity Means Scarcity

At the beginning of September, 1947 the Federal Government had nearly 160,000,000 dozen frozen and dried eggs in 'surplus' storage. At the same time the market price of eggs is at, or near, the highest point in history. These eggs cannot be sold in this country because of legal price protection to the industry. They cannot be given to the Army for relief purposes in occupied zones, except

at 100 percent of the parity price. While the State Department is looking everywhere for cheaper food for European relief these eggs cannot be transferred to that purpose. The law says NO! The parity law that prohibits use of these eggs is but a reflection of the basic Price System law that goods and services must always be kept scarce enough to command a nice PRICE.

The Technate of North America

Here are the latest population figures for the Eminent Domain of the New America. The area included in the Technate was in a map on the back cover of the November-December, 1947, 'Great Lakes Technocrat' (Research Committee 8741-1).

| Populations | Present Countries | Date & Source* |
|-------------|---------------------------|----------------|
| 134,000 | Alaska | 1945 (UN) |
| 34,500 | Bermuda | 1945 (UN) |
| 1,929,100 | British West Indies | 1945 (WA) |
| 12,307,000 | Canada | 1946 (WALM) |
| 10,098,000 | Colombia | 1946 (CC) |
| 772,000 | Costa Rica | 1945 (UN) |
| 4,779,000 | Cuba | 1946 (UN) |
| 124,900 | Curaco | 1945 (UN) |
| 1,970,000 | Dominican Republic | 1945 (SY) |
| 1,997,000 | El Salvador | 1944 (GPO) |
| 18,400 | Greenland | 1946 (UN) |
| 3,546,600 | Guatemala | 1938 (SY) |
| 376,150 | Guiana, British | 1945 (UN) |
| 191,600 | Guiana, Dutch | 1946 (SA) |
| 37,000 | Guiana, French | 1944 (SY) |
| 3,000,000 | Haiti | 1944 (SY) |
| 744,000 | Hawaii | 1937 (WALM) |
| 1,201,000 | Honduras | 1945 (UN) |
| 59,200 | Honduras, British | 1945 (UN) |
| 5,000 | Labrador | 1946 (SA) |
| 570,000 | Martinique and Guadeloupe | 1940 (WA) |
| 22,753,000 | Mexico | 1939 (LN) |
| 313,000 | Newfoundland | 1946 (UN) |
| 1,082,000 | Nicaragua | 1943 (WALM) |
| 878,000 | Panama | 1945 (UN) |
| 44,700 | Panama Canal Zone | 1945 (UN) |
| 2,083,000 | Puerto Rico | 1945 (SY) |
| 4,200 | St. Pierre and Miquelen | 1944 (SY) |
| 16,500 | Samoa | 1945 (SY) |
| 558,000 | Trinidad and Tobago | 1945 (WA) |
| 144,311,000 | United States | 1947 (USC) |
| 4,400,600 | Venezuela | 1946 (UN) |
| 25,000 | Virgin Islands | 1940 (USC) |
| 220,163,500 | Technate Total | |

*UN—United Nations. July, 1947.

WALM—World Almanac. 1947.

SY—Stateman's Yearbook. 1945.

SA—South American Handbook. 1947.

USC—US Census Bureau. August, 1947.

WA—Whitaker's Almanac. 1947.

CC—Canadian Census Bureau. 1947.

GPO—US Government Printing Office. 1945.

LN—League of Nations. 1941-42.

From the Camera's Eye View

Have You Discovered America?

'Behind All These Men . . .'

When the Turks captured Constantinople in 1453 the overland routes to India and the East were interrupted. This made it increasingly difficult for the free enterprisers of that day to get luxury products from the East for resale to the Nobility of the West.

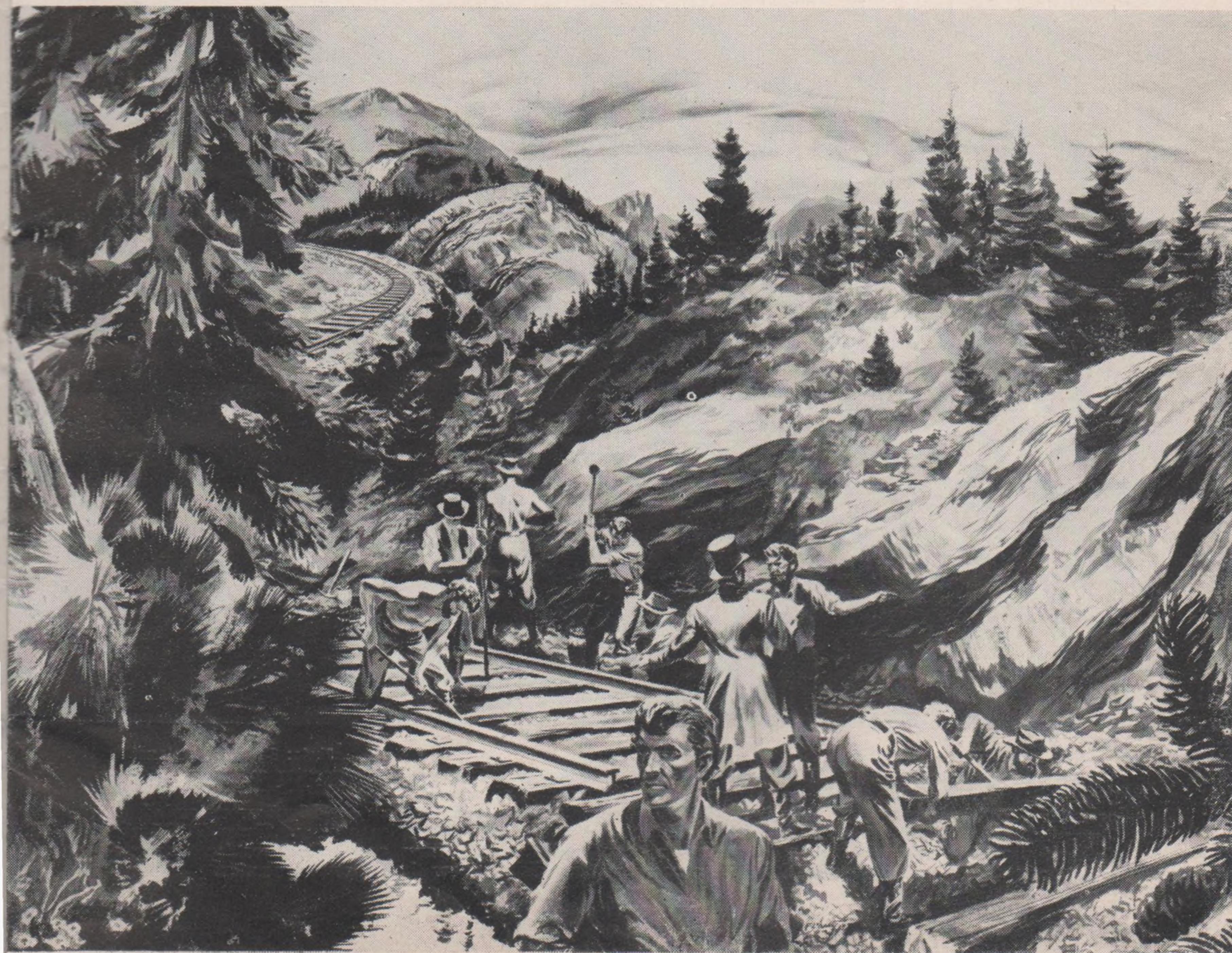
At that time the Renaissance was getting under way. Feudalism was decaying, and commercialism rising. The advance of science and technology paced the Renaissance. Among the outstanding developments of the time were the printing press, the compass, and the improved astrolabe. The first stimulated the spread of knowledge. The other two made far offshore navigation practical.

To put two and two together, the accumulated force of these events ripened to produce a still greater event. Christopher Columbus talked himself into a sponsor and set out to discover a sea route to the East by sailing west. Instead, he discovered America, in 1492. That was over 450 years ago. Yet, to this day the people of North America have not yet discovered America for themselves.

To all intents and purposes they are still rooted in the culture of late Medieval times. All around them lie the physical realities by which they live. Science and technology advance on every front. People remain fixed in the dead past. This pathology of social stasis is the product of ages of conditioning by the ancient Price System of Trade and Commerce.

It is this system handed down from the dead past that obscures the living present and the potential future. Science and technology have forged a new culture in the land that Columbus discovered. It ties this Continent together like the steel rails in this picture. No matter where you go in North America you can find technology. It grows more potent all the time. On the other hand, the Price System grows constantly more futile and senile. Today, its decaying institutions obstruct the highway to the New America of Tomorrow. The accumulated force of these events is overripe for the production of a still greater event. A major social change impends.

Photo: John A. Roebling's Sons Co.



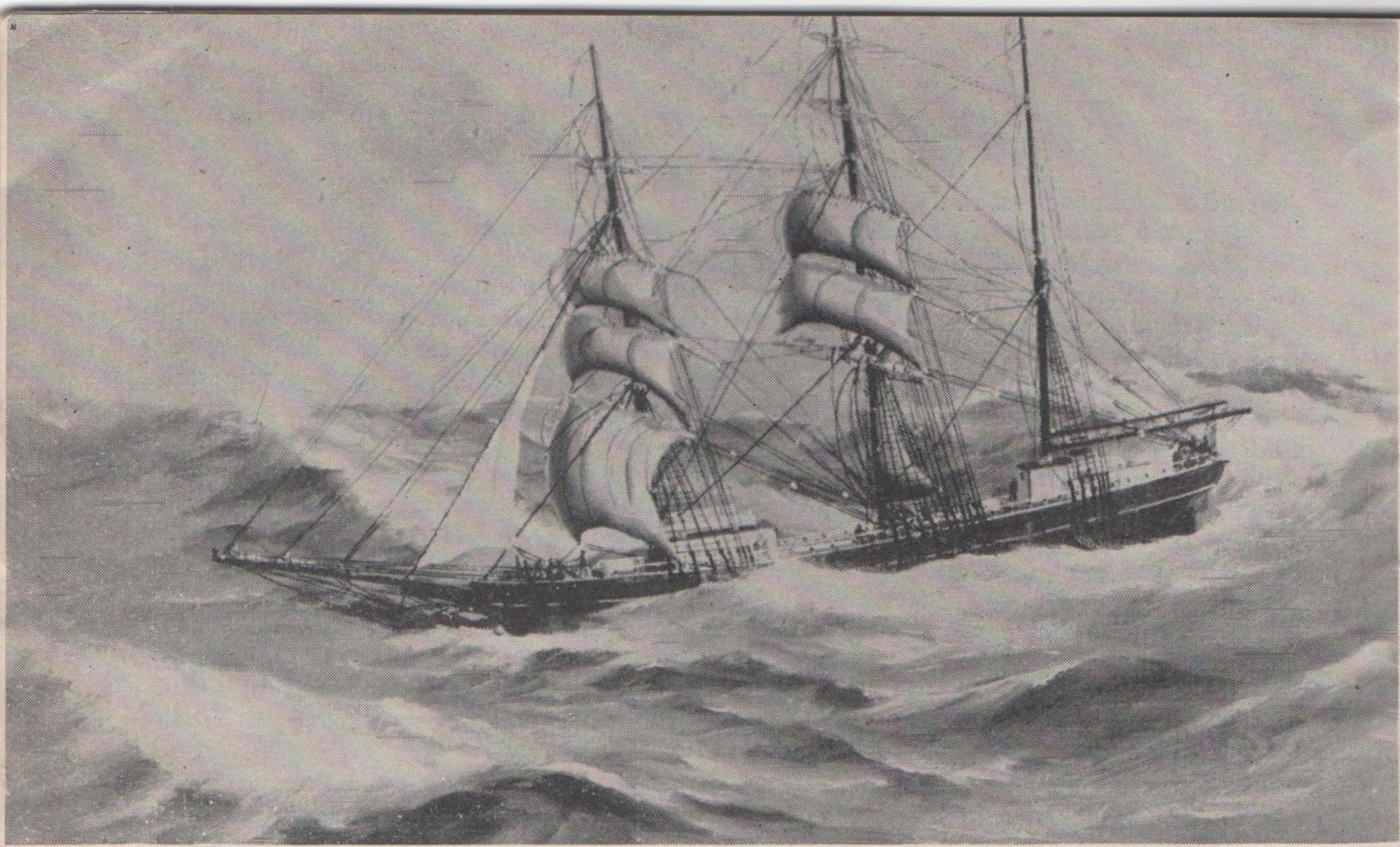


Photo: Standard-Vacuum Oil Co.

By sailboat it took around 60 days to get to America. The first settlers came here for a variety of reasons; political, economic, religious. To boil it down the basic motive was a search for more opportunity and security. In other words, they were looking for more goods and services than the Price System of the Old World could provide. Only a minority found what they came for. 'The dream that was America' never came to life for the great majority. This is because the 'founding fathers' brought the same Old Price System they were fleeing from along with them to the New World.

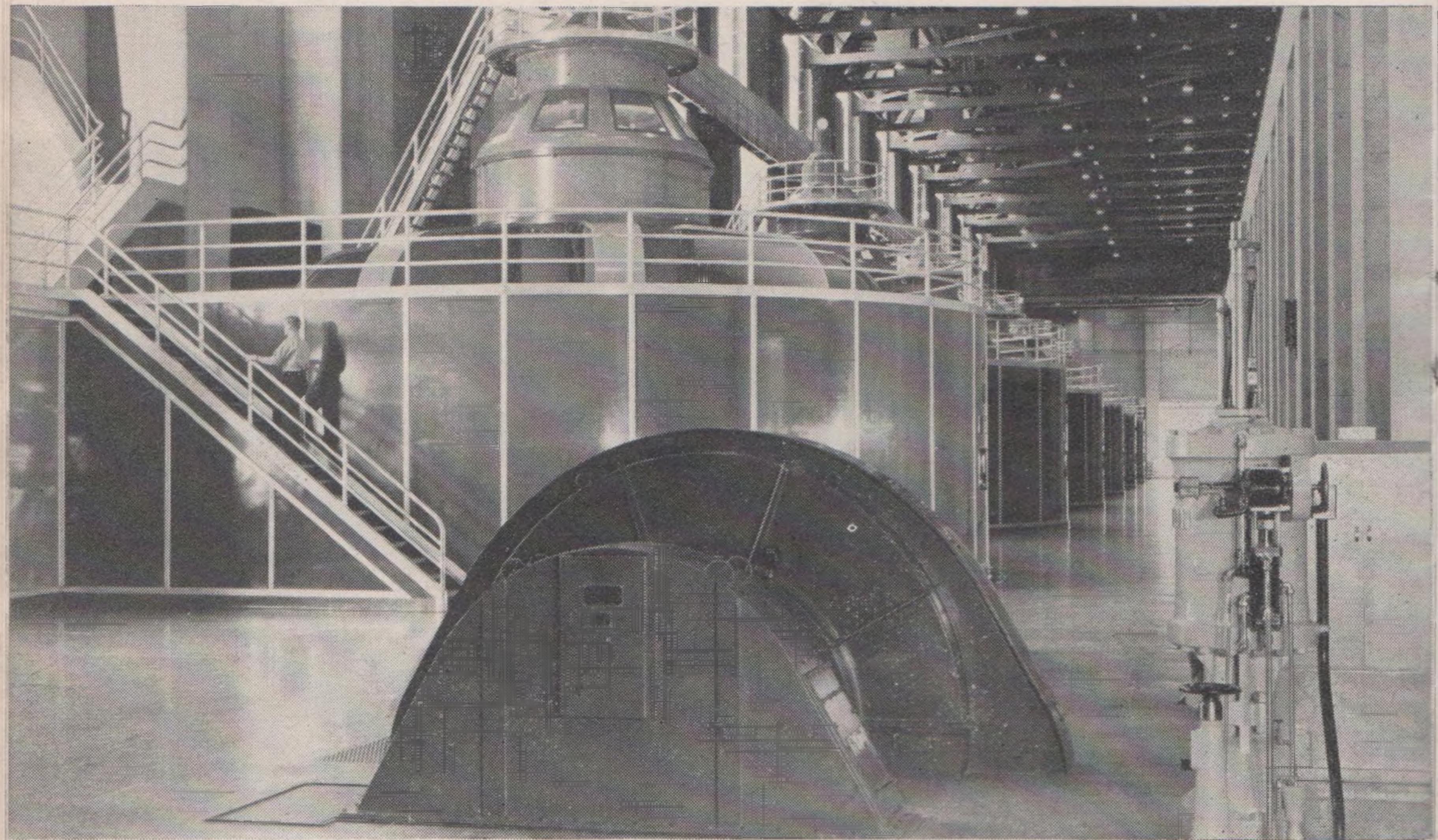


Photo: Bureau of Reclamation

Do you understand? No? Well, let's take it a little further. Here is the generator room at 'Hoover Dam.' At full operation these generators have an output of almost 1,000,000 hp-hours of energy, equivalent to the workpower of about 10,000,000 able bodied men. When the Mayflower landed at Plymouth, Mass., it had 41 able bodied men aboard, or a total of about 4 hp energy. These 41 'Pilgrim Fathers' signed a 'solemn compact' agreeing to enact and abide by laws and ordinances for the 'general good.' Their hearts were in the right place, but they didn't know their thermodynamics.

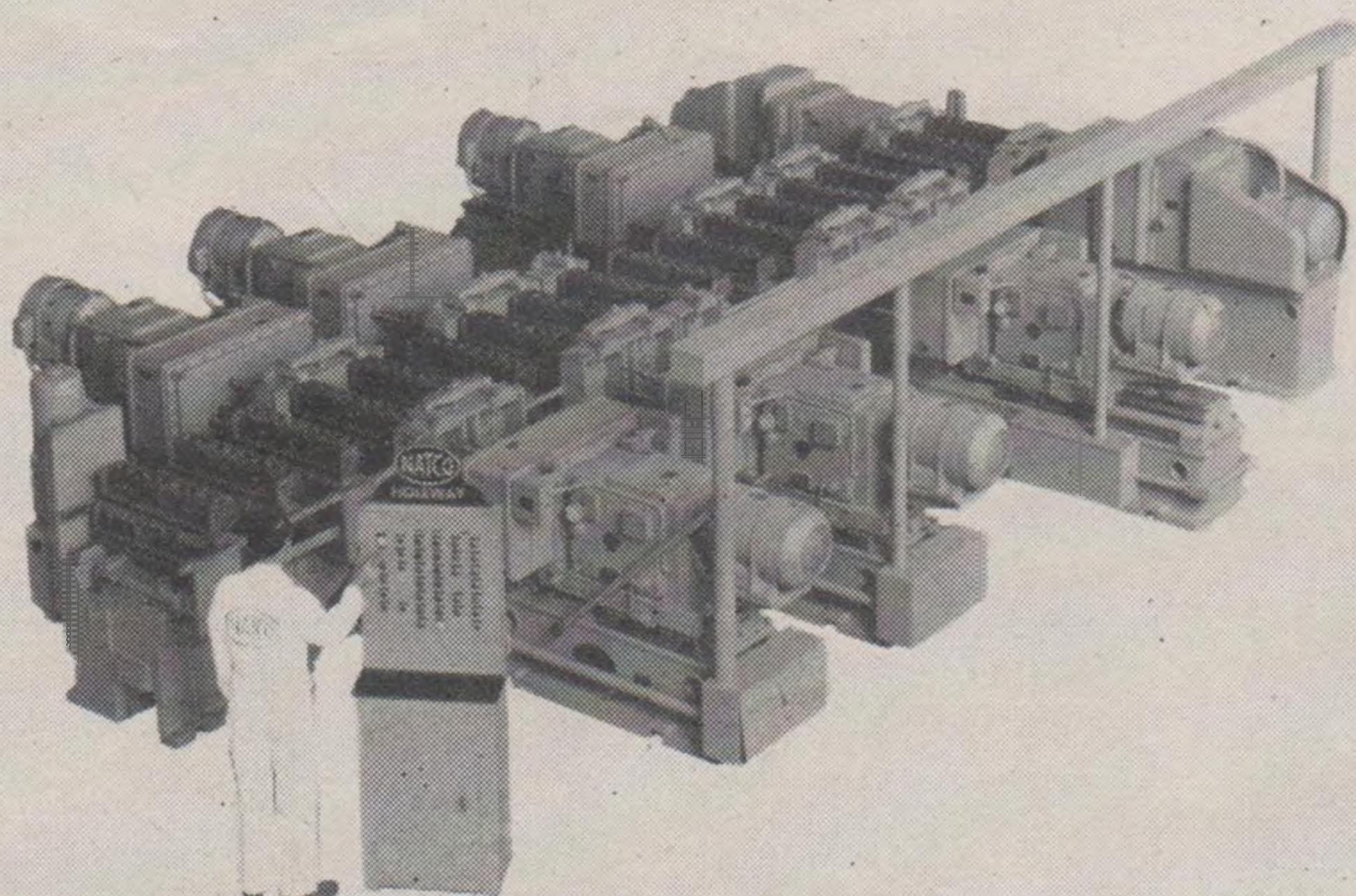


Photo: National Automatic Tool Co. Inc.

The 'general good' can never be realized by 'solemn compacts' arising from political and moral idealisms in any system of natural or artificial scarcity. The 'general good' and scarcity are incompatible they repel each other. What is needed is more horsepower of energy, plus technology. Here is a sample. This machine produces 90 engine blocks per hour with one operator. It automatically advances the blocks in 19 stations, clamps and unclamps them in each position, synchronously performs 66 operations as block travels through machine, then ejects the finished job onto a roller conveyor.

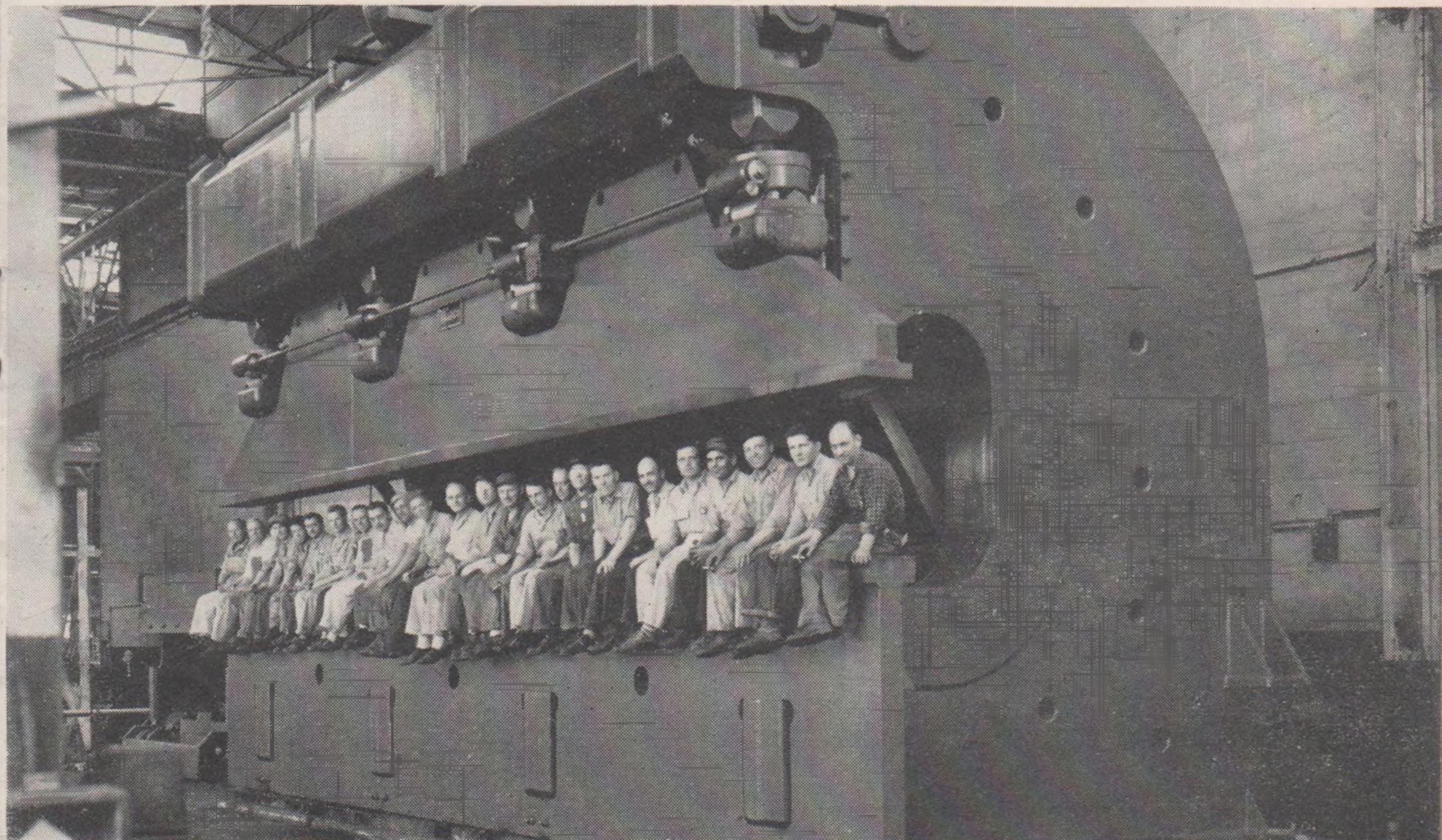


Photo: Warren City Mfg. Co.

Here is another example of how the 'general good,' i.e. abundance, security, and equal opportunity for all can be realized. That is, the principle is the same. This is the world's largest press brake, 500,000 lbs.; the fly wheel alone weighs 5 tons. Press brakes are used for notching, crimping, rolling, bending, forming, flanging, and multiple punching of sheet metal. This one bends 5/8th" sheet steel up to 36' long, and delivers a 1,000 lb. stroke at the rate of 15 per minute. It's controlled by push-buttons. It doesn't operate by 'solemn compacts' but by technological principles.

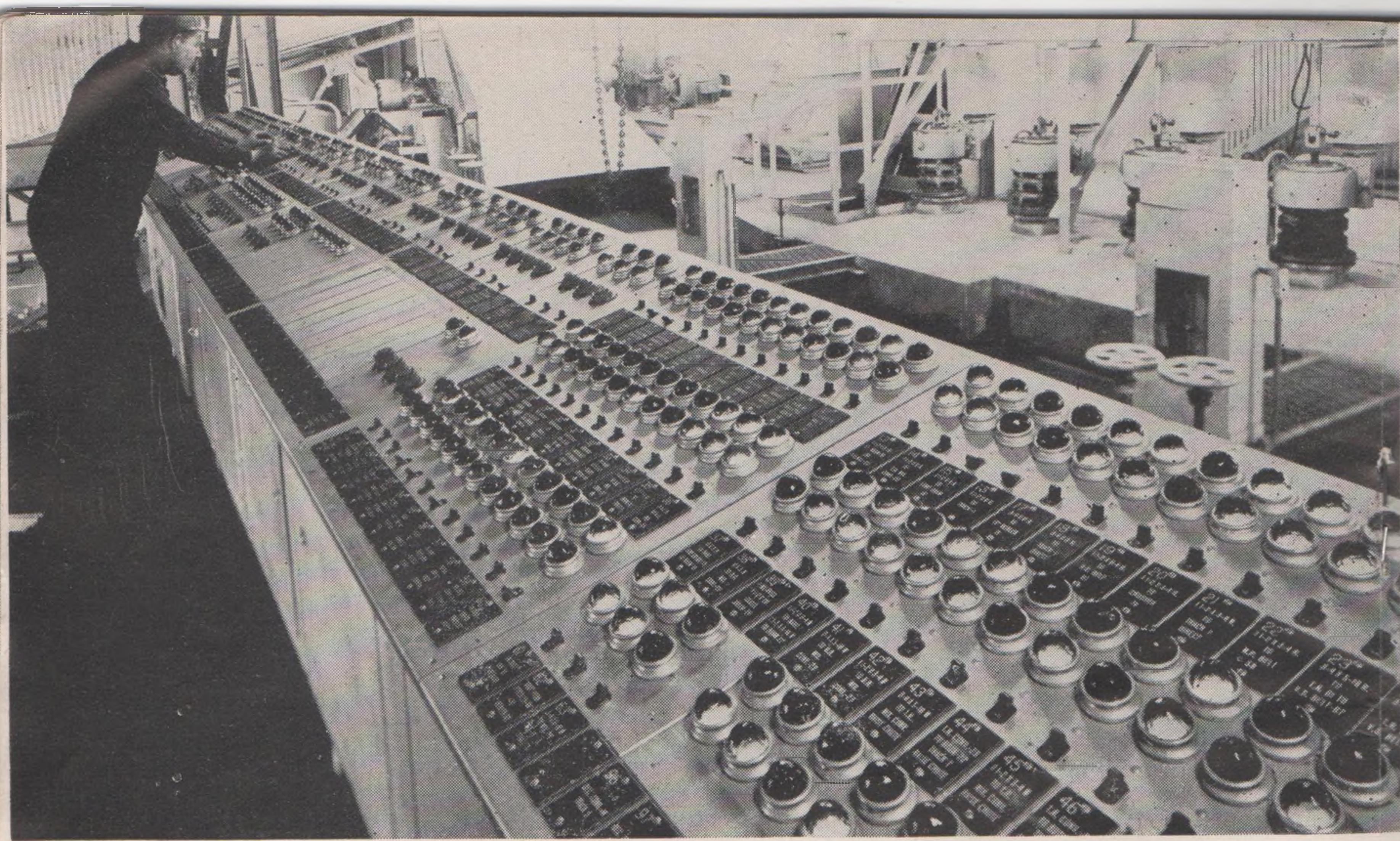


Photo: Peabody Coal Co.

The point is not that we want to belittle anybody's humanitarian motives, but 'solemn compacts' are futile in the face of physical facts. It takes power, machines, technology, and precision controls to do a job in the social field as well as the industrial. Here's some real control. It's the push-button panel of a completely mechanical coal refinery operated by one man. Plant dedusts, removes foreign matter, washes, rinses, sizes, dustproofs coal in one continuous operation. Ninety motors totaling over 1,000 hp operate in sequence to govern and energize the process.



Photo: Columbus McKinnon Chain Corp.

The ad with this picture said 'You can see for yourself they are safe. That's a good slogan to apply also to the chain that science and technology have forged in North America. It is the only safe thing the people have left to rely upon. Perilous times are ahead; a major social change impends. The trend of events dictates this, not Technocracy. However, Technocracy is the only Body of Thought that is preparing for this event. It's the only safe Body of Thought the North American people have left to rely upon. It's a safe bet that Technocracy is correct.

From the Camera's Eye View

The Tie That Binds

Operation Technet

Functional Technocrats will go a long way out of their way to advance the Body of Thought called Technocracy. That is exactly what the five Members in the picture below did. Reading from left to right they are: Lois Palmlund, Sherman Peterson, the driver, Irma Levine, Sidney Levine, and Allan Klinger. The picture was taken in front of the Chicago Section of Technocracy about 4 p.m., November 13, 1947. Peterson is a Member of Section 3, R.D. 12247, Seattle, Wash. The other four are Members at Large in New York City. All five are now in Seattle; and thereby hangs our tale.

Before the latest holocaust to make the whole world safe for Price System democracy the Organization of Technocracy had a network of amateur, short wave, radio stations called the Technet. The idea was to be prepared to render assistance to civil authorities in the event of any local, regional, or national disasters, whether caused by Acts of God or man. During the war, of course, amateur radio was banned. After the war the Technet started up again. A chain of stations was reestablished up and down the Pacific Coast. However, at Seattle there was none. This blank had to be filled in.

The equipment and personnel to do the job was found on the other side of the Continent at N. Y. City. The problem was how to get both to Seattle. Since Technocracy is a non-profit, non-commercial Organization it had to be done voluntarily. In response to this need five Technocrats set out (on their own) to drive from N. Y. City to Seattle, with a car and trailer loaded with personal belongings and the component parts and test equipment for a 1,000-watt transmitter. Bad luck dogged the venture almost from the start. The outfit had three major breakdowns and a lot of minor trouble. They left N.Y. October 29 and arrived in Chicago November 5th, taking a week for what is two days of normal travel. Five Technocrats started out from N.Y. but only four reached Chicago. The less said about the fifth one the better.

Ten miles east of Gary, Indiana, the biggest breakdown occurred. The four shown in this picture came on into Chicago via interurban line. The fifth Technocrat stayed with the car and trailer, supposedly to superintend repairs for resumption of the journey. Where do you think these four Technocrats headed for in Chicago? They beelined it to section 1, R.D. 8741, of course. By this time they required a little assistance to continue the trip. The expense of the breakdowns, plus extra travelling costs had eaten a big hole in the debt certificates. So, they figured to stop over in Chicago for awhile, get a job to replenish the treasury, get the outfit repaired properly, and then resume the journey. However, the fifth Technocrat had different ideas. The less said about him the better.

Techphoto by Spivak



Mountains of Difficulty

The Chicago Section was tickled pink by the occasion. Arrangements for housing, etc., were made at once. Sid and Allan hustled out and got a job the next day. Irma and Lois kept the home fires burning at the Section, which became headquarters for Operation Technet. Long distance calls were made to Seattle for conference and assistance. At first it looked as if every Technocrat in Seattle had gone off to Alaska. Nothing seemed to click. Then it was decided to pull the trailer into Chicago. The boys drove out to Gary with a Chicago Member to get it. When they got there the trailer was found abandoned, but intact, in an open parking lot alongside a gas station and garage. The fifth Technocrat had taken the car (it was his bus) and decamped back to the banks of the Hudson River without even calling up the Chicago Section to notify the other four.

After this debacle plans were made for a longer stay at Chicago to earn more money so they could ship the radio station to Seattle and continue the trip by bus. However, this plan was a dud because it left the Seattle Technocrats out of the picture. It seems they hadn't all gone off to Alaska. On November 8 the Section phone rang. One of the girls answered it. Section 3, R.D. 12247 was on the wire to inform them that Sherman Peterson had left Seattle at 10:30 P.M., November 7 to pick them up in Chicago.

Driving the northern route Peterson arrived in Chicago at 6:30 P.M., November 12. The speedometer showed over 2,000 miles. The next night the whole bunch left Chicago. The Section seemed empty and lonesome for awhile. The picture below shows them checking over and arranging the contents of the trailer. After dark, with a wave and a Salute they were off. A letter was received from them from Salt Lake City dated November 16. A few excerpts are as follows: 'In Nebraska in the midst of a heavy snowstorm we blew a tire . . . coming over the pass near Cheyenne the fan belt broke . . . the mountains in Wyoming were pretty bad. Lots of snow and the roads were icy . . . the weight of the trailer is pretty hard to control.'

What is a four thousand mile drive with Winter setting in across the land? What is a four thousand mile drive over icy mountain roads and snow covered plains, merely to pick up a bunch of Technocrats with a radio station? It is only a jot, a tittle, something less than a quantity subtracted from nothing. What does it amount to when you break up your living patterns on one side of this Continent and venture to the other side merely because one of the biggest things you want is to advance Technocracy? It's hardly worth mentioning, something less than a cipher wrapped up in a zero. It's a funny thing. Some people just mock. Others mock at difficulties.

As we said before the group is now in Seattle. Section 3, R.D. has what it takes for a new station in the Technet. The tie that binds reached out and spanned the Continent from ocean to ocean. This is only a beginning. It is well sometimes to tell ourselves that Technocracy was born but yesterday. It is at the starting point of its functional life: while the Price System is stumbling down its last, long mile to oblivion. Operation Technet wrote a bright, new chapter in the history of Technocracy. The less said about some things the better. But, the more said about the spirit that moves mountains when mountains don't want to be moved the more those mountains of difficulty will have to move, in the long run. **TECHNOCRACY MARCHES ON!**

Techphoto by Spivak





Techphoto: Medina Photo Studio

Technocracy uses non-commercial methods to advance its Body of Thought. These are not advertising, but symbolization. One method used is a uniform painting of Member's cars in Technocracy Gray. This is done at the Member's expense, on a voluntary basis. Motorcades of Gray Cars are organized from time to time to make an impact upon people. This one, assembled from Cleveland, Akron, and Kent, Ohio Sunday, October 19, 1947, travelled 100 miles. It visited Nelson's Ledge's, Ravenna, Kent and Cuyahoga Falls. Police escorts were used through towns.



Techphoto: Medina Photo Studio

Here the group is assembled before the Kent Section where a meeting was held to make plans for the next Motorcade. A collection was taken up to help defray expenses. Even the police escort threw in a dollar. After devoting all day Sunday to Symbolizing Technocracy the tired, hungry but happy Technocrats went together to a large restaurant to eat and, what was just as important, symbolize Technocracy some more. After all even a hobo can eat if he goes after eats. But it takes a competent citizen to symbolize Technocracy. It also takes a Technocracy Gray Suit.



Techphoto: Medina Photo Studio

Symbolizing Technocracy will be a continuous operation until the ancient and lousy Price System is no more. Here's another Motorcade that assembled from Cleveland, Akron, Kent and Ashtabula, Ohio, Sunday, November 2, 1947. The float brought up the rear. It went through East Cleveland, Euclid, Wickliffe, Willoughby, Mentor, Ashtabula, and Geneva, Ohio. Police escorts were provided and car-top mounted loud speakers announced forthcoming Technocracy events. This Motorcade covered 150 miles advancing the Body of Thought called Technocracy.



Techphoto by Lester Miller

Another way that Technocracy is symbolized is by Highway Signs. Here's one standing alongside a road in the Portage Lakes District, near Akron. It's setting on temporary supports before permanent erection. The sign is done in seven colors and the Monads are in aluminum and red. The two-sided design catches the motorist's eyes from both directions. A bus line stops right in front of the sign. Should an alert, competent citizen happen to come this way and see this sign he'll never be the same again. Technocracy stands for the New America. This is the tie that binds.

The Scrap Iron Is Back

The following poem was written as the first war dead to arrive in America were unloaded at Oakland, Calif. It was written by J.C.B. and appeared in 'The Dispatcher', a newspaper of the International Longshoremen's and Warehousemen's Union (C. I. O.). (As printed by Local 600's 'Ford Facts,' November 1, 1947.)

They didn't want to load it ten years ago, but
The shipowners said they had to do it;
The arbitrator said they had to do it;
The State Dept. said they had to do it.
I'll always remember the longshoremen said
That scrap iron will come back some day
In the bodies of American boys!

I was there as the first two coffins touched American soil,
Lowered by a groaning winch in a drizzling rain,
Draped with flags by soldiers at stiff attention,
Shoved to a jitney train by white-capped dockers.
I'll always remember the longshoremen said
That scrap iron will come back some day
In the bodies of American boys!

The brass stood around, the movie cameras ground,
Clarence Phillips said: 'I loaded this scrap iron ten years ago.
'I had the feeling it was coming back, only thing I didn't know,
'Was that I would unload it, too.'
I'll always remember the longshoremen said
That scrap iron will come back some day
In the bodies of American boys!

The guns boomed in salute, airplanes hummed and the jet planes whooshed,
For honor to seven hundred and fifty tons of dead weight.
Five hundred pounds to a casket,
Times three thousand and twenty-eight, some
From Pearl Harbor where the scrap iron sprayed
In the attack some men knew would come . . .

Maybe the dead deserved the pomp that swayed men's emotions and
Produced the tear in a mother's eye, maybe so and maybe no.
Maybe the dead would have chosen otherwise, slipped in quietly.
And maybe if they spoke, they might have asked:
'Boom these guns in memory and honor, as you say, or
'Boom they in portent of what we died to avoid?'
I'll always remember the longshoremen said
That scrap iron will come back some day
In the bodies of American boys!

'Our debt merchants have been extremely diligent in the last few years in the profitable enterprise of supplying Japan with most of its oil, most of its nickel, cotton, pulpwood, sulphur, and other necessary raw materials and manufactured products . . . if America becomes involved in a war with Japan we can console ourselves that we at least have given her something to remember us by—American materials will come back to us, done up in Japanese wrappers that won't be so pleasant, in fact, they won't be bouquets.' (Howard Scott, Director-in-Chief, Technocracy Inc. in 'Technocracy' magazine, Series A, No. 4, (October, 1935.)

Primer of Technocracy

When The Price System Collapses

By A. Himmelstein, 8741-1

Events Cast Shadows Before

There is going to be another depression. That is as certain as you are reading this article.

1. When is it going to come?
Events will determine that.
2. How bad is it going to be?
It is going to be much worse than anything we've ever seen—or ever thought we could see.
3. How will it end?
It may end with the complete collapse of our present system.
4. How does the writer know all this? well, that's a longer story.

During World War I, there was formed a group of men whose task was to make a survey of the nation's resources, machinery, material wealth, and productive capacity. This group later became known as the Technical Alliance, and from it emerged Technocracy Inc. Because of the nature of their work, involving physical trends, production in the various industries and all phases of economic activity, these men were able to predict the last depression within three months, as far back as 1921. Everyone laughed at them, but you know what happened.

There are those who will laugh at this prediction, just as there were those who laughed in 1921. Some people live and learn. Others just live. But whether we regard it with laughter or its due consideration, the facts aren't going to change. The depression is coming. The complete collapse of the Price System may come with it. Both are inevitable in the long run.

You may ask at this point: 'But what has Technocracy got to do with the depression?' or, to get even more to the point: 'What or who is Technocracy?' As was mentioned before, Technocracy emerged from the Technical Alliance. In this latter group, there were men who not only surveyed our nation's

economic activity, but who also saw how inefficiently it was managed and what had to be done to improve it. So these engineers, top men of industry, and technicians drew up a design of a new social system. This, they called Technocracy; 'techno from technology meaning the science of industry and 'crary' from 'kratos' the Greek word for government. Hence 'a government of industry.'

The basis of this design is that our lives are fundamentally physical, not political, and therefore our social order should be such as to render the greatest physical progress and not be founded on nonsensical political abstracts. To illustrate this idea of a government of Technology, let us use the Bell Telephone System as an example:

Character of Technology

What are the characteristics of this telephone organization? The *Technocracy Study Course Book* says:

1. It maintains in continuous operation what is probably the most complex inter-connected array of physical apparatus in existence.
2. It is dynamic in that it is continually changing the apparatus with which it has to deal, and remoulding the organization accordingly. Here we have a single organization which came into existence as a mere handful of men in the 1880's. Starting initially with no equipment, it has designed, built and installed equipment, until now it spans as a single net work most of the North American Continent, and maintains inter-connecting long-distance service to almost all parts of the world. All this has been done with rarely an interruption of 24-hour-per-day service. The organization itself has grown from zero to 300,000 people.
3. That somehow or other the right man must have been placed in the right job is sufficiently attested by the fact that an individual on any one

telephone in that city at any hour of the day or night, and in all kinds of weather, with only a few seconds of delay, or that a long-distance call can be completed in a similar manner completely across the Continent in a mere matter of a minute or two, is ample evidence that *the individuals in whatever capacity must be competent to handle their jobs.*

Were these individuals appointed to their position by election or any other political procedure? No! Did the Republicans run one candidate for chief engineer, while the Democrats ran another? No! Would the system be more or even as efficient as it is today if it had been run on a political basis? You answer that.

The question then is: 'How is the right man found for the right place?'

As was stated before, the fitting of the man to the job is not done by election or by any one of the familiar political procedures. The man gets his job by appointment, and he is promoted or demoted also by appointment. The people making the appointment are invariably those who are familiar both with the technical requirements of the job and with technical qualifications of the man. An error of appointment invariably shows up in the inability of the appointee to hold the job, but such errors can promptly be corrected by demotion or transfer until the man finds a job which he can perform. This appointive system pyramids up through the ranks of all functional sub-divisions of the system, and even the chief engineers and the operating vice-presidents attain and hold their positions likewise by appointment. This is the basis on which the new social system will operate.

It can be said, therefore, that Technocracy is not democratic, autocratic, communist, socialist, dictatorial, or any other of these political terms. It is simply a system designed to operate the North American Continent on the same basis as an industry is run. Just as the Bell Telephone System has its branches of repairmen, operators, engineers, etc., each with a foreman over a group of workers, a supervisor over a number of foremen and so forth, un-

til the apex of the pyramid is reached, so the entire North American Continent would be operated with all workers within the pyramid, each at his own level and his own branch, but all working together. And just as in the Bell System, each operator doesn't own her own switchboard, each engineer his own machinery and each repairmen his own telephone pole, so in the Technate everything will be centrally controlled and managed with the goal set at good performance, highest efficiency, and as much production as we can possibly consume.

Precept and Example

The reader may at this time say: 'This is all very well, but *how* does Technocracy intend to come into power? How many members does it have? What candidates is it running for what offices?'

To answer these questions:

1. Technocracy is not a political party. It is not on the ballot, and it does not have people running for offices.
2. The writer does not know how many members the organization has. What is more, he isn't very much concerned.

When there is a football game at Notre Dame, there may be an attendance of 85,000. However, there are only about 35 policemen put to the task of directing this crowd. Yet, with a ratio of more than 2,000 to one, the crowd is safely moved into the stadium, order is maintained, and when the game is over, all are safely out within half an hour.

This analogy also applies to Technocracy's position. When the Price System collapses, Technocrats will only be a minority, perhaps in the same ratio as the policemen to the football fans. But being that, their only purpose will be to point the way to a new and scientific system; they need not be a tremendous organization embracing more voters than any other party, just as there need not be more policemen than there are fans.

When this inevitable tremendous depression comes, there will be a crisis of such magnitude that the new system will have to be adopted regardless of how it is done, whether by the President declaring a state of national emergency or any other means. When people are hungry, homeless, and in dire want, they are not going to allow food to be dumped into the ocean to bolster prices, homes to be vacant because they can't pay the rent, and machines to remain idle because of a cockeyed economic system. History has shown that when a movement starts, it never does so in large numbers. When the people are oppressed, they will come to it enmasse. The right idea at the right time will win.

It is true, of course, that the more members Technocracy has and the more

Technocracy is heard of, the easier will be the task of bringing about the new age of abundance and plenty rather than the present one with its restricted production and artificial scarcity. It also means less pain, chaos, and suffering when the crisis comes and the new way is needed. For these reasons, Technocracy is always striving to increase its membership and educate more people as to what it is and what its purpose is.

Why not join Technocracy and learn more about it. After becoming a member, you get the privilege of joining a free Study Class. The material presented cannot be bought anywhere in the Price System. It will make you one of the best informed American citizens. It is well worthwhile. Join Technocracy, NOW!

'Good Old Free Enterprise'

'As the housing shortage continues, its character has shifted from an acute to a chronic phase. The number of families with literally no roof over their heads has decreased. The number of park bench, automobile, hallway, and barn dwellers has been reduced. However, there has been an increase in the number of families doubled or tripled up, in the number inhabiting unsafe or insanitary quarters, wedged into hotel rooms, trailers and tourist cabins, or making down payments on houses which they cannot afford and which they will lose in the next recession. These are the symbols of chronic housing shortage.' The Federal Reserve Bank of Chicago in its monthly report on business conditions. (As quoted in the 'Chicago Tribune,' May 13, 1947.)

Mrs. Bessie Gilles Sincox, 38, was found dead in a woods near Milton, Pa., where she and her husband had been living for three weeks without shelter. The couple was discovered by a State Policeman. The doctors said that Mrs. Sincox died after a heart attack brought on by malnutrition and exposure. (Warren, Ohio, 'Tribune Chronicle,' October 7, 1947.)

Elmer Meredith, 63, was discovered lying in a shack in the city dump, too ill and weak to move. 'He was half starved when we found him and I don't think he had any water to drink for several days,' said George Taylor, assistant custodian of the dump who discovered Meredith. 'He kept repeating, "Come and help me, George,"' reported Taylor. The police said that Meredith's legs had been 'horribly chewed by rats,' which the man was too weak to fight off. They removed him to City Hospital where his condition was reported as 'fair.' Police later discovered that Meredith has a son living in Warren. (Warren, Ohio, 'Tribune Chronicle,' September 6, 1947.)

A recent study of representative local rent boards showed that 41 percent of the members were business men. Of these 11 percent were in the real estate business, 20 percent were merchants, corporation officials and the like, 5 percent were bankers, and 5 percent were lawyers. (Gerry Robichaud in his column 'Inside Washington' in the 'Chicago Sun,' October 20, 1947.)

Dictionary of the Price System

A Word A Day Keeps The Fog Away

H. V. Wilkie, 8342-1 and GLT Staff

TOLERANCE—The pretension that ideas in opposition to your own are not nonsense.

FREE SPEECH—The inalienable right to expose the other fellow's ignorance in public.

LAND OF THE FREE—A country in which you are free to chase life, liberty and happiness to your heart's content.

DOLLAR—The permit you must have with which to chase the above items successfully.

HOME OF THE BRAVE—That little item most of the brave are still hunting for.

LANDLORD—Big boss in the home of the brave.

TENANT—Landlord's pet dish, 'he eats 'em alive.'

JOB—A Price System trap that's supposed to keep the wolf away from the door. Once installed, the wolf lives happily ever after.

RESPECTABLE MARRIAGE—Connubial bliss after it has cooled off.

SMELL—Congress in session.

STINK—Chief by product of elections.

AVERAGE CITIZEN—The sucker who makes all Price System rackets pay off.

RIGHT TO VOTE—The sacred privilege to kick one bunch of crooks out of office and elect another bunch.

BIG BUSINESS—Chief highwayman on the highway of technology.

SMALL BUSINESS—Smokescreen for big business on the highway of technology.

FREEDOM OF ENTERPRISE—Freedom to compete with big business and international cartels.

LEGAL LUMINARY—Combination fixer and 'finger man' for the above.

PRIVATE ENTERPRISE—Private squatter's rights in the domain of public welfare.

SOCIAL SECURITY—Crumbs that fall from the table of the above.

EASY PICKINGS—Backward areas of the world ripe for Price System exploitation.

RUSSIAN—A 'lousy bum' who has thrown an 'Iron Curtain' around large chunks of easy pickings.

'GODLESS RUSSIAN'—One of that nation of 'lousy bums' that has more churchgoing members than the entire British Empire.

NUT—Any guy who believes that a system organized to manipulate scarcity can also distribute abundance.

CRACKPOT—A guy who smells something rotten in the Price System and tries to treat it with Price System methods.

TECHNOCRAT—An average American after colliding head first with a book full of hard facts. He's never been the same since.

TECHNOCRACY STUDY COURSE—The book this average American collided with. After going through it, you, too, will never be the same.

EX-TECHNOCRAT—A backslider who, no matter how hard he tries, can never slide back to where he came from. He'll never be the same either.

INTEGRITY—A queer code of conduct in these latter days of the Price System. Something grandpappy used to talk about. It went out of style with hoop skirts and the passing of the frontier. It went out of style when corporate enterprise and ecclesiasticism struck a bargain with politics to sell America down the river of social fascism. Without integrity, America is lost.

(Continued on page 53)

Technology Marches On

'Machines Make Jobs'?

By Research Division, 8741-1

Behold The Poor Fish

Menhaden fish are a type of herring used chiefly for oil and fertilizer. Last August they were being brought into Delaware ports at the rate of over 8,000 tons a month. Unloading these fish used to provide a lot of jobs, but no more. By the old hand methods it took 10 to 12 hours to unload a million fish. Today, a vacuum hose is used. It will unload a million fish in less than 2 hours. Unloading time is cut by over 80 percent. 'The fish are drawn from the holds of the boat and sent to storage bins, 1,500 feet from the dock.' (*Wall Street Journal*, August 28, 1947.)

I've Been Working On The Railroad

Union Pacific locomotives are being cleaned and degreased by a shower bath method that takes only 110 minutes compared to the usual 192 man-hours. The locomotive is housed in a chamber of sheet iron and sprayed by 860 nozzles with a caustic soda solution under 50 lbs. of pressure at the rate of 2400 gallons per minute. A 4000-gallon reservoir of the caustic soda solution is recirculated, with suspended grease and paint held back by stationary and rotary screen baffles. A half-hour water rinse completes the operation. (*Industrial and Engineering Chemistry*, Oct., 1946.)

The Pennsylvania Railroad recently installed a giant, semi-automatic mechanism for cleaning electric locomotives. The mechanical locomotive laundry employs horizontal and vertical rotating brushes and revolving pinwheel sprays of steam and hot water to remove dirt and grease from wheels, journals, springs, and underframes. It will scrub, rinse and polish a locomotive in 15 minutes 'compared with two hours and 55 minutes required to do the job by hand.' (*Wall Street Journal*, September 9, 1947.)

A new-type commutation ticket recently put into use by the Central Railroad of New Jersey does not require any punching. Consequently, 17 employees were laid off. 'In admitting the layoff, a spokesman for the Central said: "The men are being released simply because there is no work for them to do under the new ticket system.'" (*New York Times*, September 26, 1947.)

Conveyor Belt Blues

Near DuQuoin, Illinois, is a coal mine called 'The New Kathleen.' The original Kathleen mine, there, was abandoned because of high costs due to antiquated equipment and long hauls from the working faces to the tipple. However the original Kathleen mine provided a lot of production jobs. Not so with 'The New Kathleen.' She is a beauty, technologically speaking, and rather choosy about the company she keeps. Undercutting of the coal as well as drilling is done by machines. Compressed air cartridges with a pressure of 10,000 psi are used for blasting. After blasting, an electrically operated machine gathers the coal and hoists it over a conveyor belt into a shuttle car. The shuttle car also has a conveyor belt. It then moves over to the main shaft and unloads onto the main conveyor belt. 'The coal is moved to the tipple and shunted into a series of inclined grading and washing chutes by conveyor belt.' The coal proceeds by gravity down to railroad tracks at ground level where it is loaded into coal cars.

'Best appraisal of the efficiency of the new mine is that while its output of 5,000 tons a day is the same as the old Kathleen, only 275 miners are needed for capacity operations. Old Kathleen employed 600.' (*Chicago Daily News*, October 7, 1947.)

Machines Displace Machines, Too

A new baking machine for cinnamon rolls and tea biscuits has been installed in the Detroit area. It replaces all the old style equipment such as dividers, rounders, proofers, and molders. Two strips of dough are fed through automatic rollers. At this point the filling, such as cinnamon, is deposited on the bottom layer of dough. The two strips are then brought together and 'a press stamps and drops the rolls, ready for the oven, in trays automatically fed under the press.' The machine replaces four standard machines previously in use, and turns out 4,800 rolls an hour. 'It will require one-third the labor needed to operate the present four machines.' (*Wall Street Journal*, August 11, 1947.)

*'For I remember stopping by the way,
To watch a Potter thumping his wet
clay.'*

'Mechanization is creeping into American potteries.' U. S. producers are in the midst of a revolution in the industry. The revolution began with the installation of materials handling devices. Then came the automatic jigger. This machine forms flatware, pitchers, gravy boats and similar pieces, buffs the uneven edges, dries them, and makes them ready for the first firing. A four-man crew performing these operations by hand used to turn out 35 to 40 dozen plates an hour. The automatic jigger turns out 240 dozen dessert dishes, or 180 dinner plates.

Then, there's the mechanical dipper. A good hand dipper can turn out 800 dozen pieces of flatware a day. The mechanical dipper carries 1500 dozen pieces through the glazing spray and drying oven every hour. 'Artisans who put the gold or silver lines on the outer rims of flatware could complete as many as 200 dozen a day each. A "liner machine," with a crew of three, handles 150 dozen an hour.' Other technological changes, more startling, are in the offing. (*Business Week*, September 13, 1947.)

Those Damn Bureaucrats

A new oil extraction process has been developed by the Southern Regional Research Laboratory of the U. S. Department of Agriculture. The process extracts oil from cottonseed with a petroleum solvent (hexane) instead of with a conventional hydraulic press. This is the first radical innovation in cottonseed oil production since the first cotton oil mill was built in 1837.

The seed is first cleaned and de-linted. Then it is passed through machinery which separates the hulls from the kernels. 'These are then cooked and fed into the top of an extractor, passing downward. A solvent, fed in at the bottom, travels upward.' The solvent-oil mixture is then clarified and distilled which permits separation of the oil and reclamation of the solvent. The process produces a greater yield of oil per ton of seed; a better cottonseed meal with more protein; superior quality oil;; recovery of by-products never obtained before; and recovery of lint for use in felt and padding. 'Only four skilled workers are required to operate the plant, which has 240 tons a day output.' (*Business Week*, June 28, 1947.)

Tell Me Not In Mournful Numbers.....

The first machine tool show held in the U. S. in a dozen years was recently put on in Chicago. It was 'the biggest collection of new developments in metal-cutting equipment ever assembled under one roof.' Over 2,000 new tools of 220 types were assembled. The show covered 12 acres. Up and down its 3 miles of aisles over 100,000 industrialists, engineers, technicians, Technocrats, and visitors from over 30 foreign nations, plodded back and forth, seeing with their own eyes the marvels that technology has wrought.

Machine after machine, by the hundreds, demonstrated in actual operation that modern technology makes production jobs scarce. Still those obtuse apologists, the industrial editors of the Price System, come out with their half-reasoned, wholly-sycophantic articles

that 'Machines Make Jobs.' Every technician in the land worth his salt knows better. We could fill this whole magazine with data and examples to refute these stuffed shirts. But, what's the use! Once a stuffed shirt always a stuffed shirt. Technocracy has more important fish to fry.

Perhaps a few headlines about the machine tool show from authoritative voices of the Price System will make a dent in the cerebral concrete of our stuffed shirt friends. The *Wall Street Journal* of September 8, 1947, in its story of the show, headed it this way. 'Machine Marvels—Huge New Tools Speed Output, Cut Costs, Yield Better Products.' What costs do you suppose they referred to, the cost of toilet paper, or doilies for afternoon tea parties. No, they mean costs of production and that spells *less jobs*.

Business Week in its story of September 27, 1947, used his head: 'The New Tools: Less Labor, More Output.' That's the way to say it.

Mill and Factory for September, 1947, in its story of the show used a huge head which stated: 'Modernize or Perish.' It then went on to say that '10 men operating 10 old machines produce 50 parts per day. Six men operating 2 Modern Machines produce 200 parts per day. Result: High wages, High Profits, Low Prices plus four men available for other work in the plant.' The only trouble with this idiocy is that the only men who get the high wages are the 6 men left on the job; the Boss gets the High Profits; John Q. Public can wear his shoe leather out hunting for the low prices; and the 4 displaced men, or an equal number of others, will not be used for other work

in the plant. Technology is everywhere these days.

Exhibits No. 1 and 2.

Factory Management and Maintenance for September, 1947, reports the results of a survey it conducted on 'What's Happening to Productivity.' The survey was conducted among 476 companies employing over a million workers. Since January, 1946, there has been an overall increase in productivity in these companies of 5.3 percent. Figured on a per year rate of increase this amounts to 3.3 percent. 'Ninety-two percent (of the companies) predict that productivity will rise an average of 7.6 percent in the next year.' (Italics theirs.)

The Bureau of Labor Statistics reported in November, 1947, that Output per Man-Hour in 24 industries has risen 7 percent between 1945 and 1946.

A Skunk By Any Other Name

An instrument for measuring all kinds of odors, pleasant or otherwise, has been developed by the Hooper Foundation of the University of California. It is expected that the instrument, expressively called the Stinkometer, will eliminate the need for the services of fish smellers to determine whether fish is spoiled. It will probably be useful to a broad range of manufacturing and processing industries.—*Steel*, Sept. 9, 1946.)

Now, if some gadget genius would only invent an instrument to measure the stink that rises to high heaven every time a Price System apologist proclaims that 'Machines Make Jobs,' we could die happy.

No Connection

Farmer Zeke: 'Look here, you owe me \$8 for pasturing your heifer. I've had her now about 10 weeks. When do I get the money?' Farmer Hank: 'Say, that critter ain't hardly worth \$10.00.'

Zeke: 'Then suppose I keep her for what you owe me?' Hank: 'No, I won't do that, but I'll let you keep her two more weeks and then you can have her.' (*Fillers*, April, 1947.)

Technocracy And Your Trade

Machine Shop Workers

By Organization Division, 8741-1

Basis of Mass Production

A machine shop is a workplace where machine tools are used. Machine tools are power-driven mechanisms which perform the double function of holding a piece of metal firmly in position while shaping it to the desired form. The shaping is done by cutting, shaving or grinding the metal or drilling holes in it. Some machine tools operate by moving the cutting edge around, over or through the metal. Others operate by moving the metal around, over or through the cutting edge.

The most common kind of machine tools include lathes, grinding, honing and lapping machines, boring mills, drilling and milling machines, shapers and planers. 'Machining is one of the five principal methods of shaping metal. The others are casting, forging, rolling and stamping.' Bulletin No. 895 of the Bureau of Labor Statistics, to which we are indebted for all data and quotations used here, unless otherwise specified, offers this statement in regard to machine shop workers.

The machine shop worker is a key figure in this age of metal. His work is essential in the manufacture of automobiles, railway cars, airplanes, farm machinery, and a thousand other products. In addition he makes and repairs machinery used to manufacture these products, and even the machine tools which make other machines. It is easy to see the critical importance of machine shop workers in our economy . . . Machine shop jobs are the largest single group of skilled jobs in manufacturing . . .

Types of Shops

There are several types of machine shops. Some manufacture metal products and other machines. Some do maintenance work. The manufacturing shops are divided into three groups; job shops, machine tool plants, and

production shops. In job shops a wide variety of products are made. Job shops usually make only a few of each kind, however. Some produce parts to order for any manufacturer who seeks them out. Others constitute a department of a plant manufacturing custom-made machinery where a wide range of models is produced.

Production shops usually turn out large quantities of identical parts. This type of shop acts as a supplier to mass production industries, such as the automobile industry, household appliances, or radio industry. In these, hundreds of thousands of parts of the same design are needed. Production shops may be independent, others are departments of large plants.

Plants manufacturing machine tools usually produce larger quantities of identical parts than job shops but lesser quantities than production shops. In 1939 there were 200 plants manufacturing machine tools with an employment of slightly over 36,000 wage earners.

Maintenance shops make or repair parts for machinery and metal equipment. They are usually a department of some plant. Thus, some maintenance shops are in metalworking industries while others are in non-metalworking industries. Maintenance shops are found in every kind of business from railroad repair shops to textile mills, to large office buildings.

Job shops because of their variety of work require a wider range of skills. Production shops because of the large quantities of identical parts produced use more semi-skilled and lesser skilled workers. On this point the BLS Bulletin states:

Very often production shops use a number of "special purpose machines" which are designed to perform only one certain operation and therefore do not need special adjustments. These machines are highly automatic and the operators need little skill.

Types of Jobs

At the peak of wartime employment in December, 1943, there were about 1,200,000 machine shop jobs divided as follows::

| | |
|--------------------------------|---------|
| 1. Machine tool operators..... | 910,000 |
| 2. All-around machinists | 170,000 |
| 3. Tool and die makers..... | 90,000 |
| 4. Set-up men | 20,000 |
| 5. Lay-out men | 10,000 |

Machine tool operators usually work on a single type of machine tool. Some are skilled but the great majority are only semi-skilled. Skilled operators are comparable to all-around machinists. They can do widely varying kinds of machining. They can work from blueprints or layouts, set up the machine for each operation, adjust the feed and speed controls, measure the finished work, and sharpen cutting tools. They also understand the machining qualities of various metals.

The semi-skilled operator does work which is repetitive rather than varied. A set-up man or machinist sets up his machine for him, installs the cutting tools, sets the controls, and runs off a trial cut. After this the machine is turned over to the operator whose job consists mainly of watching the operation for signs of trouble.

The all-around machinist is the 'basic and original machine shop occupation.' It 'requires a knowledge of all the machine shop skills necessary to make and repair metal parts for all kinds of machinery and metal equipment.' All other machine shop occupations developed out of this occupation as division of labor was made necessary by the advance of technology.

The majority of all-around machinists are employed in maintenance shops. Also, many are employed in machine tool plants and in production shops where entire machines are made such as tractors and railroad equipment. Many all-around machinists are also employed as skilled machine tool operators, set-up men and lay-out men in production shops.

Offspring of Technology

Tool and die makers are usually highly trained all-around machinists who specialize in making the cutting tools used on machine tools, and the jigs and fixtures used to hold the piece of metal stationary while it is being machined. They also make the gages and measuring devices necessary for precision work.

Die makers make the dies used in the metal shaping operations of forging, stamping and pressing, and the metal molds used in die casting metal and molding plastics. They must possess all the skills of the all-around machinist and in addition be able to work to closer tolerances and do a greater amount of precise handwork.

Tool and die makers are employed in many industries. Quite a few work in tool and die jobbing shops which make machine tool accessories, tools, dies, and jigs on a custom basis for other companies. However, the great majority of tool and die makers' jobs are connected with the automobile industry. Another large block are employed in the household appliance and agricultural implement industries.

The set-up man is a skilled specialist. He works from blueprints, written specifications, or job lay-outs, installs the cutting tools, adjusts the controls, and supervises operation for accurate production. The usual practice is to assign a set-up man to a number of machine tools which are often of one type, such as the turret lathe. He sets them up for the lesser skilled operators who tend them.

The lay-out man is another skilled specialist. Working from blueprints or written specifications, he makes the 'guide lines, reference points, and other instructions to operators on rough castings, forging, or metal stock.' He must be able to use a wide variety of hand tools with great skill and understand the operations of all standard machine tools. Lay-out men are employed chiefly in production shops of mass production industries.

In March, 1940, over 86 percent of all machine shop jobs were located east

of the Mississippi River. Over 75 percent of the jobs were in the 15 States east of the Mississippi and north of the Ohio Rivers. Over 37 percent were in the five States of Ohio, Indiana, Michigan, Illinois, and Wisconsin. About two-thirds of all machine shop workers are employed in metal working industries and one-third in non-metalworking industries.

Impact of Technology

Bulletin 895 states:

Since metal working industries employ by far the bulk of the machine shop workers it is to these industries that we must look for the chief indication of what is likely to happen to machine shop employment.

O.K., Bulletin 895, we'll take you at your own word. Let's see first what HAS happened in metal working industries in the past and what is happening now. This will give up a good case to project into the future.

The Bulletin presents an optimistic picture of trends in the metal working industries. It says that: 'The trend of metal products, although marked by extreme ups and downs, has been generally upward for many decades.' Note the use of the word PRODUCTS. Nothing is said about jobs. It is well known that total production of the metal working industries has been 'generally upward for many decades.' Can the same be said for the total number of jobs, or man-hours of labor?

The answer is NO! The Bulletin itself provides this answer in the appendix on Page 26. In 1899 there were 1,173,000 production workers in the metal working industries. During the next two decades employment rose to 3,023,000 by 1919. That year marked the peak of prewar jobs. Thereafter the number of jobs declined for 20 years until World War II started in 1939.

At the peak of war production near the end of 1943 employment had risen to over 7,000,000 jobs. Since then, up to October, 1946, it has again been declining. In the latter month there were more than 2,500,000 less jobs in

metal working industries than at the peak of war production. No appreciable increase in employment in metal industries has occurred since October, 1946. These are the Bureau's own figures.

However, there were over a million more jobs in the metalworking industries in 1946 than existed in 1919. This sounds like a big gain. If we recall that the average work week in 1919 in all manufacturing was 46.3 hours and in 1946 was only 40.5, we can see that the increase in total man-hours of labor (aside from the wartime boom) has not amounted to much.

At this point we should remind ourselves that total mass purchasing power is not determined by the total number of jobs, but by the total number of man-hours bought and paid for. Every coolie in the Orient has a job, a burlap sack to wrap around his skinny carcass, and a bowl of rice to chew on, at least most of the time. The word JOB in itself means nothing. Most convicts in penitentiaries have jobs. But, neither convicts nor coolies have much purchasing power.

Long-Run Prospects

A large part of the increase in jobs and man-hours of 1946 as compared to 1919 is due to the fact that during the 1930's there was far less capital invested in new metal working plants and equipment than during the 1920's. An *American Machinist* Inventory of Metal Working Equipment reveals that in 1930 only 46.3 percent of all metal working machines were over 10 years old. In 1940 the percentage 10 years old was 70.5 percent. As machines get older, their productivity declines, thus necessitating more man-hours of labor, or operation, to maintain production.

Thus, while there has been a big war boom in metal working, this means little in regard to longrun prospects in the industry. The war and post-war conditions are artificial and temporary. Of course, if American fascism could manage to maneuver U. S. into a permanent war, say with the 'godless Russians,' there would be plenty of jobs

in machine shops. The only trouble with that is that in a few years the U. S. would run out of metals. Then there wouldn't be any jobs at all.

The BLS Bulletin states that:

The number of jobs for machine shop workers in the future depends upon the production trends of the industries in which they are employed and also upon the effects of technological changes.

At last, the cat is out of the bag. 'Technological changes.' Where have we heard that before? It seems to us that Technocracy Inc. is always talking about the impact of technology. Maybe the BLS has something here. Let's see.

Among the technological factors cited by the Bulletin are the following:

1. Highly automatic, special purpose machines
2. High speed carbide cutting tools
3. Electronic controls
4. Hydraulic mechanisms
5. Increased use of profiling attachments
6. Better organization of machine shop processes
7. More economical and precise methods in casting and forging.
8. Substitution of other processes such as stamping, die casting and plastic parts

The Bulletin hastens to add that: 'These improvements, while reducing the employment required for a certain volume of output do not necessarily result in a lowering of total employment needs.' As if on second thought, however, the Bulletin adds the following:

Technological changes cannot, however, be ignored in considering the prospects for employment in any particular industry or operation. This is because they affect the amount of employment which will result from a given volume of production in the future. In the case of machining processes, there have been many recent technical changes which may have an important effect on the number of jobs there will be for machine shop workers. During the war, under the necessity of increasing rapidly the output of metal products, the development of new machines and techniques was in-

tensified and hastened. Many of these developments should carry over into the future with even greater force.

Curtain's Going Up

That's telling them. The effect of wartime developments is already evident. A publicity release of the BLS dated June 7, 1947, reveals that the number of direct (non-supervisory) man-hours required to produce a machine tool declined 10 percent between 1939 and 1945. The report was based upon a study of 12 standard machine tools.

A glance at Department of Commerce figures on expenditures for new plant and equipment throws a lot of light on this decline in man-hours. Between 1937 and 1939 there was more new capital investment in plants, etc., than in any like period since 1929. In 1940, with the start of defense preparations and until 1942 new investment jumped still higher. During 1943 and 1944 it declined because of the war. However, 1945 saw a peak in capital investment. This peak was exceeded in 1946, and 1947 puts even this in the shade.

The coming year of 1948 promises to see more new capital invested in metal working plants than ever before. A survey by *Iron Age*, published in its September 11, 1947, issue reveals that 560 metal working companies that spent \$50,000,000 for new machine tools in 1940 will spend \$72,000,000 for new tools in 1947-1948.

Another survey by the *American Machinst*, published in its September 11, 1947, reveals that 643 metal working companies will spend about \$95,000,000 for new equipment before the end of 1948. Extrapolating from this sampling of the industry *American Machinist* states it is conservative to estimate that about \$500,000,000 will be spent for new machine tools by domestic metal working industries before the end of 1948.

Over 44 percent of the new machine tools listed in the survey will be carbide tipped, and 34 percent will have hydraulic feeds or drives. This is not all. *Iron Age*, in its September 11, 1947, issue reports that the average monthly shipments of machine tools in 1946 were

nearly twice the 1939 monthly level. Over 53,000 new lathes, over 55,000 new grinding and polishing machines, and over 10,000 new milling machines were shipped in 1946. About 20 percent of our machine tool output has been going abroad recently, according to the U. S. News of August 8, 1947.

Look Inside The Package

At first thought it might seem that all this will create a lot of new jobs. Such is not the case, however, all apologies of the Price System to the contrary notwithstanding. It is true that new capital investment creates new purchasing power while it is being spent. That is the effect up to the time the new equipment is installed and operating. After that the reverse effect accrues.

The new equipment invariably produces more output with less man-hours of labor. Thus, the cumulative effect is to reduce total man-hours and hence total mass purchasing power. If machines made jobs as Price System apologists assert, then there should have been an ever growing shortage of labor evident as technology developed. The opposite has been the case.

Before 1900 when modern technology started to come in, unemployment was unknown in the U. S.; except during financial panics. From 1900 to 1919 the American Price System was still expanding. Unemployment was small. However, from 1919 to date, or for the last 27 years, mass unemployment has become chronic, except during wartime. As technology developed, there have been fewer and fewer job opportunities in productive industry. This is true for manufacturing, agriculture, mining, construction, and transportation.

The percentage of the population engaged in these lines has fallen ever since 1900. More and more people have been forced into trade, service, distribution, and financial lines to make a living. These lines do not add anything to the basic wealth of the country. Alfred G. Norris of the University of California has pointed out these facts in his study of *Employment Trends in the U. S. Since 1900*.

In connection with machine shop jobs, a look at the number of machine tools in use in comparison with the number of jobs in machine shops is enlightening. In 1919, the peak of pre-war employment, there were about 600,000 machine tools in use (G.L.T. Research Figures) and 3,023,000 jobs in machine shops. In October, 1946, there were about 1,775,000 machine tools in use (American Machinist) and, according to Bulletin 895, there were 4,681,000 jobs.

Thus we see that the number of machine tools almost tripled in the 27 intervening years, but the number of jobs increased by only a little over 50 percent.

The *American Machinist* figures on installation of new machine tools also show the following when compared with the BLS figures on employment. From 1919 to 1939 while the number of new machine tools was steadily going higher, the number of jobs was steadily dropping.

The next time some Price System fakir tells you that 'machines make jobs' tell him to have his head examined.

A New Day Is Dawning

Where does all this leave the machine shop worker? It leaves him in the same boat with all other Americans. The dictum of the Power Age is that the only way to produce more is to install more technology and reduce man-hours. This may seem like a dismal prospect especially to the bulk of machine shop workers classed as semi-skilled. They will get the axe first.

However, this same dictum of the Power Age holds forth a certified promise of Abundance and Security for all citizens. We have always produced more by working less, ever since technology came in. However, as a people we have not received the benefits therefrom. These have always gone to 'Good Old Free Enterprise' (our quote). The only way to realize a social system of Abundance, Security and Equal Opportunity for all citizens is to scrap the business and financial controls over

our system and install technological social controls.

Technocracy Inc. has made a special study of this. Its analysis and conclusions cannot be refuted. It would be to the best interests of all machine shop workers to join Technocracy. There they can learn the correct an-

swers to all American social problems. Technocracy does not conflict with unionism. It is purely educational, non-political, non-sectarian, and non-profit. Technocracy has the answers you are looking for.

Join Now!

That 'New Look'

Before the war there were about 2,000 management consulting firms in the U.S. Today there are about 15,000. These firms are in the business of devising ways and means to cut the cost of doing business for other firms. The *Wall Street Journal* for May 22, 1947 says: 'The waiting rooms of these experts, known as management engineers, are jammed with corporation representatives seeking a cure for high costs.' They will find it, but you can bet it will be at the expense of the human components concerned.

The National Society of In-Plant Feeding Engineers recently made a survey of industrial feeding operations in more than 58,000 plants of the U. S. Results are as follows: The 'worker who has a rest period and a chance to get a mid-morning snack averages 14 percent more in working efficiency at the end of the morning than the employee without that opportunity. At the end of the working day, it was found that the employee who has had another rest period and some food in the afternoon is at least 21 percent more efficient.' ('New York Times,' September 14, 1947.)

Women's skirts were made longer to help the women's apparel industry out of a slump. The physical volume of sales was running 22 percent under that of 1946. So, the Big Boys had a meeting and, Presto, all the women in the good old U.S.A. jumped through the hoop. The longer skirts use 250,000,000 more yards of cloth. (Data from 'U. S. News,' October 10, 1947.) To supplement the above 'Business Week' for October 11, 1947, reports that textile profits for 1947 will break all records.

'At Massachusetts Institute of Technology, out of 4,200 applicants only 900 will be accepted this fall. About one-fourth are veterans. The total enrollment at the Institute will be 5,300 about normal. The same conditions exist at Harvard, Tufts and other New England Colleges having engineering schools.' ('Engineering News Record,' August 21, 1947.)

U. S. dollars and foreign gold held in the U. S. is greater than before the war. At the same time 16 foreign nations are asking for over \$20,000,000,000 under the Marshall plan. There is now over \$26,000,000,000 hiding in the U. S. which is owned by foreigners. ('U. S. News,' October 24, 1947.)

The population of Europe more than doubled between 1800 and 1900, says a Twentieth Century Fund report, increasing from 187 million to 400 million.

Economic justification for the construction of a sewer system in Chungking, China is advanced on the basis that the savings in coffins, due to the reduced death rate, would pay for this sanitary improvement in 19 years. (Coloney A. B. Morrill, U. S. Public Health Service, as quoted in the 'Engineering News Record', August 21, 1947.)

The trade union movement of Seattle, Washington has been invited to join the Seattle Chamber of Commerce. The Chamber went to the extent of adding a special clause to its by-laws making such membership possible. In presenting this item of Price System cultural advancement the 'Seattle Star,' of July 1, 1947 says: 'So far the chamber has had no "nibbles" from unions seeking to join.'

Each In His Own Tongue

By Publications Division, 8741-1

Voice Of The Price System

Read 'Em and Weep

When we Republicans destroyed OPA last summer we did the best thing that could have been done for the American economy.

U. S. Congressman, Robert Hale of Maine.

This program (the national health bill) did not originate in the United States, but in the secret councils of world communism.

U. S. Congressman, Robert A. Grant of Indiana.

The so-called Fair Employment Practices Act, sponsored by so-called progressive Democrats, was in reality part of a program which had its origin under the leadership of the Soviet-dominated Communist Party.

U. S. Congressman, William M. Colmer of Mississippi.

What I want to know is what are we waiting for? Why are we giving the Russians still more time?

U. S. Congressman, Paul W. Shafer of Michigan.

Let us make peace with the German people and line them up on our side, if we are going into this battle royal throughout the world.

U. S. Congressman, John E. Rankin of Mississippi.

All of the above statements were made by the gentlemen named in the proceedings and debates of the 80th Congress, First Session. (As quoted by the *New Republic*, August 4, 1947.)

Fluctuating Pappy

What's so sacred about rent? It's all right for food prices to go up 100%, but not rent, huh?

There is nothing sacred about rent. Both food prices and rent should be allowed to fluctuate somewhat freely!

Congressman Charles R. Fletcher (R. Cal.) to a witness testifying before the

House Banking Committee. (As quoted by the *Chicago Star*, March 22, 1947.)

Second Hand Citizens

I am not saying that all families must have new housing. Obviously most families will continue to occupy second-hand housing. But to assure a larger supply of adequate second-hand housing at prices and rents within reach of lower income families, there must be a progressive reduction in the cost of the new product.

Raymond M. Foley, National Housing Administrator, in a talk to the National Public Housing Conference at Chicago. (As quoted by the *Christian Science Monitor*, March 19, 1947.)

Secretary of Whose Defense?

It is essential that the oil fields of Saudi-Arabia be developed in the national interest. It (the Arabian-American Oil Company's pipeline project) should come ahead of developments in the United States or the Western Hemisphere.

Secretary of Defense James Forrestal. (As quoted in *National Petroleum News*, October 15, 1947.)

How About a 'Farmer's Bible'?

Obviously, more money can be made by the manufacturer if he puts his wood pulp into a higher priced item. And soft facial tissue sells for more than toilet tissue, even though the same amount of wood pulp is used.

Herbert Altholz, an executive of the Inlander Steindler Paper Co., in an interview with the press in explanation of the current extreme shortage of toilet paper in Chicago and vicinity. (As quoted by the *Chicago Daily News*, November 6, 1947.)

Must've Switched Away From Calvert

I understand the national emergency has passed. This is the first I ever

heard of a European emergency impairing a contract over here. The only way the government without law can impair a contract is during a national emergency. Contracts are sacred.

Judge W. Scott Miller of the Jefferson Circuit Court, Louisville, Ky., in a ruling ordering a Bardstown, Ky., distillery to resume operations, despite a request by the citizens food committee to cease operations so as to conserve grain. (As quoted by the *Wall Street Journal*, October 29, 1947.)

Music Lovers—Attention!

Mr. Petrillo has saved the music industry and preserved the live musician, which is important to the preservation of musical culture throughout the world. Without Mr. Petrillo and his battle the nation would become platter-happy.

Daniel D. Carmell, attorney for James C. (Little Caesar) Petrillo, music czar, in a plea to Judge Walter J. LaBuy in U. S. District Court, Chicago, upon the occasion of Petrillo's appearance to answer a charge that he had violated the Lea Act by trying to force a local radio station to hire deadhead musicians. (As quoted by the *Chicago Times*, November 12, 1947.)

Do Not Render Unto Caesar

When the issues of Church and State clash, which often happens in moral problems, the Church reserves her right to dictate her course of action; and being a superior society, should take precedence.

Extract from the *New World*, Chicago's Official Catholic (Roman) paper. (As quoted by Carl Wiegman, in an article on the political activities of the Catholic (Roman) Church, in the *Chicago Tribune*, April 5, 1947.)

Voice Of Technology

It's Still Nip and Tuck

We may be through with the past, but the past is not through with us. Ideas of the Stone Age exist side with the latest scientific thought. Only a fraction of mankind has emerged from the Dark Ages Any man who for one moment abandons or suspends the questioning spirit has for that moment betrayed humanity.

Bergen Evans, Professor of English at Northwestern University, in his book The Natural History of Nonsense

Dictum of Dictums

If we choose to build and conserve our resources—as we must in order to survive—then we have no alternative but to accept abundance and learn to live with it . . . It must sound paradoxical to countries poor in resources that we must search for ways to use our abundance in order to provide abundance for the future. And yet that is our true situation.

Secretary of Agriculture Clinton P. Anderson, in testimony before a House Committee considering long range agricultural policy. (As quoted by the *U. S. D. A. Clip Sheet*, May 18, 1947.)

Call For Technocracy

In a world where our lives from the kitchen to the battle line are shaped by the influence of machinery embodying scientific principles and where social questions involve scientific method it is not enough that they should take a couple of old-fashioned departmental science courses.

We need to devise new courses in which the nature of science, the concepts that apply to its various branches, the basic results achieved, and an account of the ways in which results can be achieved will be presented systematically.

Dr. Harry J. Carman, dean of Columbia College, speaking before the Lehigh Valley Conference on the Advancement of teaching at Lehigh University. (As

quoted by the *New York Times*, May 25, 1947.)

It's The System, Mister

The hardheaded, practical American businessman is living in a dream world. His is a very nervous dream, still tintured with rosy hope, but threatening to become a nightmare any minute. Let it be said that, here and there, exceptions to the rule exist. But approximately nine businessmen out of every ten, if my cross-section is a good one, no longer have contact enough with reality to be safe on a scooter on a suburban sidewalk . . .

The businessman has lost all contact with reality. Nothing that he thinks, hopes or acts upon is true. Whatever happens that runs against his illusion, he blames on Roosevelt—a ghost. Because he does not consider himself in any way responsible for society—he has become antisocial.

Philip Wylie in his column in the *Chicago Daily News*, September 6, 1947.)

Good Old Free Enterprise

This is the day of the special interests. The manufacturers weakened the legal basis of collective bargaining. The railroads obtained from the Senate exemption from the anti-trust laws. The wool growers were prevented only by a veto from wrecking the nation's program for expanded world trade. The insurance companies secured a conditional license from Congress, and in Illinois have just secured an open license from the legislature, to fix premiums by monopolistic methods.

All down the line, ever since the war, one special interest after another has imposed its will upon the public will. Social objectives have been sacrificed to selfish objectives, cooperation to conflict, common cause to greed. It is every man for himself, dog eat dog, and devil take the hindmost.

From an editorial in the *Chicago Sun*, July 4, 1947.

'Eventually—Why Not Now?'

In the eighth year of a major inflation we are steadily approaching a major depression. No such inflationary expansion can be corrected by a mere

recession. These statements are self-evident, and the real problem, as always in economic measurement, is the timing. No one can really tell when the coming depression will arrive.

Nevertheless, it is possible to guess that if there were no prospect of anything like the Marshall Plan or of a great new armament program, the depression might very well come upon us in 1948, or at any rate in 1949. On the other hand, financing of and production for either a Marshall Plan or an armament program probably would be inflationary enough to keep business going at a high level for several years more, thus postponing but not preventing the ultimate depression.

The first two paragraphs of an editorial entitled 'How's Business?' in *Baron's Weekly*, September 8, 1947.

Bricks, Too, Maybe, Huh?

It is a matter of record that the research director of United States Steel said quite frankly that they won't expand because they expect a depression. We'll be lucky if they aren't right—if we don't have a bust. If we do have a depression, it'll make 1933 and 1921 look like tea parties. And the fellow on the street corners won't sell apples. They'll throw rocks.

Paul Porter, last director of the OPA, in an interview with the press at Atlanta, Ga. (As quoted by the *Chicago Times*, September 13, 1947.)

Waiting At The Bar

I am willing to appear before your committee and present, under oath, so as to be subject to the pains and penalties of perjury, conclusive documentary proof that the Roman Catholic Church in the United States is engaged in subversive activities which are undermining our American form of Government and are designed to destroy the political and religious freedom of our people.

Former U. S. District Court Judge Albert Levitt of Santa Monica, California, in a letter in July, 1947, to Congressman J. Parnell Thomas (R.N.J.), Chairman of the House Committee on Un-American Activities. (As quoted by *The Converted Catholic*, October, 1947.)

In The Question Box

How To Get Technocracy

By Speakers Division, 8141-1

QUESTION:

Name several practical steps by which we citizens will be able to get Technocracy adopted.

ANSWER:

There are three practical steps every citizen can take to help get Technocracy adopted. These are:

- A. Join Technocracy
- B. Learn Technocracy
- C. Practice Technocracy

Let's take a little closer look at these steps to see what they involve.

Join Technocracy

Obviously, one can do but little on the outside to help get Technocracy adopted. It is all well and good to be sympathetic toward Technocracy. It is all well and good to think and speak favorably about Technocracy when the subject comes up. But how can such action carry much weight if the speaker is not a member and well versed in his subject? The average layman is likely to conclude that the speaker's attitude represents only a curbstone opinion. He will discount your statements accordingly.

This reaction is characteristic among Americans of good sense. They don't call in a carpenter when the plumbing leaks; or a chiropractor when the old jalopy gets stubborn. This is a technological age. North America is populated by a people who have been conditioned to technical factors in a large part of their daily life. When information on any subject is desired, the tendency is to seek out persons whose occupation, or interests, shows that they know something about the subject.

Then, too, people respect other people who have the courage of their convictions. If you can prove that you have gone to some trouble to learn

about any particular thing, people are more likely to listen to you. If they see the Monad button on your coat, this is evidence that you have done this. The act of joining Technocracy is simple. All it amounts to is like a declaration that you want to see a New America ushered in.

What you are doing by joining Technocracy is telling the world that you want more goods and services and better goods and services than the Price System can provide. You want these things for yourself and all other citizens, as well, since that is the only way you can get them for yourself. You want Abundance, Security and Equal Opportunity for yourself and everybody else. So does everybody else.

This is one platform on which all North Americans agree. It makes no difference whether one is black, white, red, yellow, or brown; Catholic, Protestant or Free Thinker; Republican, Democrat, or Socialist; big-brained or lame-brained. All North Americans want more goods and services and better goods and services. All North Americans want Aundance, Security, and Equal Opportunity.

From this you can see how basically fundamental Technocracy's program is. Some day (soon, we hope) it will be as basically popular as it is fundamental. By joining Technocracy you will be aligning yourself with the trend of events that is determining the future. At the same time you will not be endangering your present position in the Price System. Technocracy does not conflict with anything in the Price System, except the Price System itself. It stands for an entirely New America.

Learn Technocracy

After you have joined Technocracy, the first thing to do is get into a Study Class. There you will be provided free with a type of knowledge that cannot

be bought for love or money anywhere in the Price System. You may be only an average, badly-posted American or Old Man Einstein himself. It makes no difference. Everybody can learn a great deal in the Technocracy Study Course. It teaches one the social aspect of Science.

This knowledge is what North America needs more than anything else. Unless a sufficient number of North Americans learn enough about the social aspect of Science to be able to talk about it intelligently, social fascism will take over. Then we won't need to learn anything new, except how to keep from getting shot or locked up in a concentration camp. The social aspect of science contains the key to your future, your family's future, and the future of your country.

If this is not of the top order of importance, we would like to know what is. To be able to present this idea in its many ramifications is an accomplishment of the highest order of citizenship. What is more, it will make a new man, or woman, out of you. It will stabilize your 'mind' and free it from many psychological disabilities induced by Price System conditioning. It will give you confidence, poise, and integrity. It will actually improve your health.

When you have learned Technocracy, you become a marked man. You will be marked in intelligence, understanding and patriotism. People with good sense will look up to you. The other kind don't count. When America's great and inevitable crisis comes, you will be able to help stave off social chaos. You will know which way the bread wagon is going. People will come to you in droves for information. And you will tell them, because you are a Technocrat and an American. Because you are these, you will have the correct answers.

Practice Technocracy

All of the above, of course, is also practicing Technocracy. Nevertheless, there is more to being a functional Technocrat. Technocracy is two things in one. It is a Body of Thought and an Organization. The function of the

Body of Thought is to elaborate the social aspect of Science. The Function of the Organization is to communicate this knowledge to the people.

The Body of Thought called Technocracy revolves around a scientific analysis of the Price System of trade and commerce. This analysis reveals the nature of the system and its operating characteristics. From this breakdown of the system certain general principles are induced and deduced. These form the Synthesis of Technocracy, its conclusions. The Synthesis tells us what to do about what's the matter with this ancient and lousy system.

The only thing that can be done is to scrap it and install a new system organized along new lines, calculated to operate in the interests of all citizens. This new system is not a Utopian dream. Its general form and operating rules are already in use very successfully. How do you think North America achieved its miracles of production in two world wars? Was it done with philosophy, politics, or business methods? It was not.

It was achieved in direct ratio to the degree those ideologies were scrapped and technological principles applied. We could have done much better had we needed to. Behind North America's gigantic industrial machine is a network of physical laws, scientific laws. Over the years of our National existence, this network has grown and been applied in industry. It is by these rules we produce the means whereby we live. Business controls the stop and go lights and exacts its toll along the way. Business does not produce anything except lousy social conditions.

Technology is the producer of physical wealth. Technology is the framework of North America's new social system. What Technocracy has done is to work this out and project the form into the future. So, you can see that Technocracy is not a Utopian dream. It is something real that is struggling to be born in the 'minds' of the American people. The Organization of Technocracy is the handmaiden of this struggle. It waits upon the American people with a service that cannot be calculated in dollars and cents. It is

a selfless service because the Organization of Technocracy will be disbanded when the new social system is installed and operating.

The Organization is made up of local Sections. The Sections are made up of committees and sub-committees. Each one has a different function. The whole operates to put Technocracy to the people. There is a working place for every skill and talent on one or the other of these Section committees. The only way there is to practice Technocracy is to join a Section, get on a committee, and get busy. If there's no Section in your community, start one. It's been done hundreds of times.

Various methods are used to put over Technocracy. However, these are all educational and non-commercial in character. Technocracy is not interested in futilities and the greatest futility of all is to try to solve the social problems produced by the Price System by the use of more Price System methods. It can't be done. If we want to solve our social problems, we must scrap the methods that have failed for so long and use a new approach.

So, you will find that Technocracy is different. There is nothing else like it on this Continent. Its Body of Thought is the pilot model of a new civilization. Its Organiztaion is the Technological Army of the New America. Its members are regular Americans who have a far better than average love for their motherland; a far higher concept of citizenship than the ancient and lousy Price System ever elaborated, and a far higher devotion to their consanguinity with their fellow men than was ever woven from the intricate webs of philosophy.

Science alone has the correct answers to America's social problems. And, Technocracy is the social aspect of Science. If you really desire to help get Technocracy adopted, all you have to do is:

- A. Join Technocracy
- B. Learn Technocracy
- C. Practice Technocracy

Salute and Happy Landings in the New America of Tomorrow.

Cure For Social Cancer

'The essence of science is its method, common to all the individual disciplines, which differ from each other primarily in the group of phenomena with which they interest themselves. The method of science is essentially empirical and is based on observation of phenomena either naturally occurring or induced by experimental procedures. The rationalness of reality is implicitly assumed and cause and effect relationships sought.'

'The great objective validity of science depends on its rigorous adherence to the facts of nature in preference to beliefs or dogmas based on any human authority. Thus, the facts recorded by any individual must be confirmed by others before they are accepted as certainly true, and the theories devised to explain the relationship of these facts are subject to revision in terms of all future facts.'

'Science has indubitably been of great utilitarian value to mankind, our present

industrialized civilization depending every minute on the technical and hygenic achievements of science.' (From the syllabus of the biological sciences, Fourth Preliminary Edition, 1934, The University of Chicago.)

'The cancer in western society is not the class war or nationalism, it is not communism or fascism; it is the refusal of the minority to share civilization and its advantages with the majority.' (Leonard Woolf in his book *Quack, Quack*, page 27.)

'Of all the various ways in which the imagination has distorted truth there is none that has worked so much harm as an exaggerated respect for past ages.' Henry Thomas Buckle (1882-1862) English historian in his work *History of Civilization*.

Add Dictionary Items

(Cont. from page 37)

ROUND TABLE DISCUSSION—A cracker barrel gab fest moved from the general store in Podunk to a radio station in Chicago.

MODERN SOCIAL PROBLEM—How to skin the other fellow before he skins you.

MONARCHY—Institutionalized racketeering—glamorized thievery.

POLITICS—Fraud in which public works is used as a 'blind pig.'

LAW OF SUPPLY AND DEMAND—Catch as Catch Can, no Holds Barred, and the Devil take the hindmost.

INTEREST—Usury in disguise.

INDUSTRIALIST—A usurer traveling incognito.

TAXES—The toll charge to go down the road of life.

THE PRESS—The sick room chart of the Price System.

POLITICAL SCIENCE—A formal study in social futility.

SOCIAL SECURITY—This one has us stumped. What the hell is it? We are just as curious as you, brother.

BANK—An institution where one can borrow money if one can submit evidence to show that one doesn't need money.

BRAIN TRUSTER—One who can bring organized chaos out of regimented confusion.

Only \$1.50 out of every \$100 the average American spends each year goes to the support of churches and private welfare organizations says a Twentieth Century Fund report.

'More than \$1,000,000,000 will be spent by American and Canadian producers of pulp and paper in the next two years for expansion to meet increasing demands for paper and paper products, a survey made by the American Paper Merchant indicates.' (Commerce magazine, March, 1947.)

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACTS OF CONGRESS OF AUGUST 24, 1912, AND MARCH 3, 1933.

Of **GREAT LAKES TECHNOCRAT**, published bi-monthly at Chicago, Illinois, for October 1, 1946.
STATE OF ILLINOIS } ss.
COUNTY OF COOK } ss.

Before me, a Notary Public, in and for the State and county aforesaid, personally appeared R. B. Langan, who having been duly sworn according to law, deposes and says that he is the Editor of the **GREAT LAKES TECHNOCRAT**, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the act of August 24, 1912, as amended by the Act of March 3, 1933, embodied in section 537, Postal Laws and Regulations, printed on the reverse side of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor and business managers are:

Publisher—Section 1, R. D. 8741 Technocracy Inc., 3178 N. Clark St., Chicago 14, Illinois.

Editor—R. B. Langan, 3178 N. Clark St., Chicago 14, Illinois.

Business Managers—None.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.)

Section 1, R. D. 8741 Technocracy Inc., 3178 N. Clark St., Chicago 14, Illinois, which is a chartered unit of Technocracy Inc., Continental Headquarters at 155 E. 44th Street, New York 17, New York, a non-profit, membership, educational organization, with no stock or stockholders. The Officers of Section 1, R. D., are Richard Starck, Director; Eve Pettit, Secretary; O. Floyd, Chief of Staff; M. Nelson, Treasurer all with addresses at 3178 N. Clark St., Chicago 14, Illinois.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.)

None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant had no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

ROBERT B. LANGAN.

Sworn to and subscribed before me this 17th day of September, 1947.

JOHN G. FRIENDLEE,
Notary Public.

(My commission expires March 8, 1950.)

The trucking industry is howling its head off about the Navy's 'long-time habit of moving its personnel's private home furnishings with Navy trucks.' ('Wall Street Journal,' October 24, 1947.)

NOTICE

To Our Readers

If you will send in seven names to 'Great Lakes Technocrat,' together with a one dollar bill we will mail each one a sample copy. 7 for \$1.00.

Facts In A Nutshell

In 1900 there were 175 different sizes of lamp sockets and bases.

A pound of aluminum can be spun into a thread or filament 11,500 yards, or six miles long. (Science Digest, April, 1946.)

A glass ball five-eighths of an inch in diameter can be stretched into a continuous fibre 95 miles long.

The human body is so full of empty space that if we concentrated all the 'solid' matter in one place, the average body would be about the size of an aspirin tablet.

All kinds of fabric clothing can be made by gluing the cloth together instead of sewing it, according to tests performed on various fabrics at the Good-year Laboratory.—*Plastics News Letter*, April 23, 1945.

There are only 746 vessels of 100 horsepower and over operating on U. S. inland waterways. About 65 percent of them are equipped with Diesel engines and new construction is almost all Diesel. (New York Times, March 16, 1947.)

'Of 188,500 tons of wood cut in the forests of the United States each year for lumber, pulp and paper and other commercial products, 108,900 tons, or 57 percent, is wasted or burned for fuel.' ('New Agriculture', August, 1947.)

Some Technocracy Section Ad-

dresses in Great Lakes Area

8040- 2—Box 356, Ambridge, Pa.

8041- 1—1613 East 51st St., Ashtabula, Ohio.

8141- 3—39 E. Market St., Akron, O.

8141-7—P. O. Box 270, Barberton, O.

8141-14—P. O. Box 553, Kent, Ohio.

8141-15—10537 St. Clair Ave., Cleveland 8, Ohio.

R. D. 8242—c/o John Reynolds, St. Clair, R. No. 2, Mich.

8341- 1—3242 Monroe St., Toledo 6, Ohio.

8342- 1—9108 Woodward Ave., Detroit 2, Mich.

8342- 2—112 N. Tasmania, Pontiac, Mich.

8343- 1—6717 N. Saginaw St., Flint 5, Mich.

8439- 1—37 E. Fifth St., Dayton 2, Ohio.

8741- —3178 N. Clark St., Chicago 14, Ill.

8743- 1—3546 N. Green Bay Ave., Milwaukee 12, Wis.

8844- 1—620 S. Broadway, Green Bay, Wis.

8844- 2—1011 W. College Ave., Appleton, Wis.

9038- 1—4518 Delmar Blvd., St. Louis, Mo.

R. D. 9041—2428 13th Ave., Rock Island, Ill.

R. D. 9140—18 N. 5th St., Keokuk, Iowa.

R. D. 9241—620 Pershing Road, Ottumwa, Iowa.

R. D. 9344—Box 572, Uptown St. Paul 2, Minn.

9344- 1—1924 Lyndale Ave. So., Minneapolis 4, Minn.

9439- 1—418 E. 9th St., Kansas City 6, Mo.

9648- 1—819 N. Duluth Ave., Thief River Falls, Minn.

R. D. 9737—4442 Bayley, Wichita 9, Kan.

R. D. 9738—614 E. 8th, Hutchinson, Kan.

TECHNOCRACY

NORTH AMERICA'S ONLY SOCIAL DYNAMIC

WHAT?

★ Technocracy is the only North American social movement with a North American program which has become widespread on this continent. It has no affiliation with any other organization, group or association either in North America or elsewhere.

★ The basic unit of Technocracy is the chartered Section consisting of a minimum of 25 members and running up to several hundred.

★ It is not a commercial organization or a political party; it has no financial subsidy or endowment and has no debts. Technocracy is supported entirely by the dues and donations of its own members. The widespread membership activities of Technocracy are performed voluntarily; no royalties, commissions or bonuses are paid, and only a small full-time staff receives subsistence allowances. The annual dues are \$6.00 which are paid by the member to his local Section.

★ Members wear the chromium and vermillion insignia of Technocracy—the Monad, an ancient generic symbol signifying balance.

WHERE?

★ There are units and members of Technocracy in almost every State in the U. S. and in all Provinces in Canada, and in addition there are members in Alaska, Hawaii, Panama, Puerto Rico and in numerous other places with the Armed Forces.

★ Members of Technocracy are glad to travel many miles to discuss Technocracy's Program with any interested people and Continental Headquarters will be pleased to inform anyone of the location of the nearest Technocracy unit.

WHEN?

★ Technocracy originated in the winter of 1918-1919 when Howard Scott formed a group of scientists, engineers and economists that became known in 1920 as the Technical Alliance—a research organization. In 1933 it was incorporated under the laws of the State of New York as a non-profit, non-political, non-sectarian membership organization. In 1934, Howard Scott, Director-in-Chief, made his first Continental lecture tour which laid the foundations of the present nation-wide membership organization. Since 1934 Technocracy has grown steadily without any spectacular spurts, revivals, collapses or rebirths. This is in spite of the fact that the press has generally 'held the lid' on Technocracy, until early in 1942 when it made the tremendous 'discovery' that Technocracy had been reborn suddenly full-fledged with all its members, headquarters, etc., in full swing.

WHO?

★ Technocracy was built in North America by North Americans. It is composed of North American citizens of all walks of life. Technocracy's membership is a composite of all the occupations, economic levels, races and religions which make up this continent. Membership is open only to North American citizens. Aliens and politicians are not eligible. (By politicians is meant those holding elective political office or active office in any political party.)

★ Doctor, lawyer, storekeeper, farmer, mechanic, teacher, preacher or housewife—as long as you are a patriotic North American—you are welcome in Technocracy.

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HALT—WHO GOES THERE?

‘The real friends of our American way of life are those who recognize and fearlessly reveal the obvious danger signals that are evident on every side, and who seek to eliminate the threats to our social order while there is yet time and opportunity.

‘The most dangerous enemies we have are not the “crackpots” who peddle cheap and naive panaceas. Such persons at least recognize that something is wrong, though their remedy may be as bad or worse than the malady itself.

‘The real menace to our civilization is to be found in those who insist on living in a “fool’s paradise” of smug conceit and complacency, conducting a sort of sit-down strike against intelligence, and insisting that nothing is wrong in this best of all possible worlds.

‘Such adamant smugness inevitably charts the course of society from decadence through dry rot, to crisis and totalitarianism.’

(Harry Elmer Barnes, educator and historian, in the preface to his book ‘Social Institutions’, page VIII.)